THE FARMERS' CABINET,

AND

AMERICAN HERD-BOOK,

DEVOTED TO

AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC AFFAIRS.

"The Productions of the Earth will always be in proportion to the culture bestowed upon it."

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For the Farmers' Cabinet.

Rot in Sheep.

Mr. Editor,—The attention of agriculturists having been drawn, by many well-written articles in the Cabinet, to the consideration of sheep-husbandry on a larger scale than has hitherto been practised—by which it appears that the taste for mutton has *risen* in the market—I am induced to address a few lines in the way of urging upon those who contemplate raising and feeding sheep-stock as a system, to be quite prepared, before they commence operations. And to this end their fences should be particularly attended to, and crops prepared for winter food, with a good enclosure and a suitable shed to serve as a place of shelter and perfect security during the feeding at that season of the year. All these things premised, however, I do not know of a more convenient or profitable stock than a flock of well-bred sheep, sufficiently numerous to call for and remunerate the services of an individual well acquainted with the habits of those animals, and competent to take the charge of them at all times and under all circumstances—a real, thoroughbred shepherd. Few persons are aware of the great difference which exists between a good breed of sheep and a bad one; "a sheep is a sheep," to be sure, but, as has been said of the different breeds of cattle for the dairy, there is more than 100 per cent. difference between a good animal and a bad one, the one giving a profit, the other a loss. Now compare the difference in value between many of those long-backed, herring-bellied creatures which are so often brought to the cities for slaughter, and for which $1 50 is a high price, with those lately fed by Major Raybold, of Delaware, a part of one of which was exhibited at a late meeting of the Philadelphia Agricultural Society, measuring 4¼ inches clear fat at the end of the ribs—a wether, only two years old, one of a lot of thoroughbred Leicester or Bakewells, which had been drawn from the flock for feeding, some of which weighed more than 40 pounds per quarter, and brought $30 a head from the butcher! Can there well be a greater difference in *quantity and quality?* And at this present time lamb is selling in the Philadelphia market at $1 50 per quarter, where it might have been a month ago. Now, here are five dollars for the lamb and the ewe to fatten during the summer, her fleece paying for her keep—need there be a more profitable crop, considering, too, that it prepares itself for market without ploughing, sowing, reaping, or mowing! and leaving behind it a far more profitable return in manure than its whole cost of keep in the ordinary way.

There is one consideration, however, which demands the most careful and vigilant attention; in all probability much of the land that might be devoted to sheep-husbandry may be unsound, from its want of drainage and proper cultivation, and thus become the means of rotting the whole flock in a very short space of time, even, as has often been declared, in a few hours' feeding upon it: this must be particularly guarded against, and the flock must be prevented from stepping a hoof upon a soil suspected of unsoundness, which soil, although it might be fed with impunity by horses or cattle, would be destructive to the flock. These situations are easily and quickly discovered by the rank and *washy* species of grass and plants which infest them, and are easily cured by draining and moderate liming. Salt also, is a most effectual preservation against this cruel disorder; but this should be always kept before the flock in troughs protected from the weather by a slight roof; dry food always accompanying it while the flock is feeding on suspected ground.

Many theories have been entertained respecting the cause of this destructive malady—the Rot in Sheep—some persons supposing that the eggs of the flukes, which are always found in great abundance in the livers and gall-bladder of sheep dying in this disease, have been taken into the stomach with the grass upon which the sheep have been feeding—while others consider that these animalculæ are only the *effect* of disease, engendered by the putrid contents of the stomach, occasioned by the cold and watery and acid property of the food taken by the sheep while

feeding on aquatic plants, indigenous to low or moist pastures. Amongst those who entertain this latter opinion, is Mr. William Hogg, who, for more than half a century, was engaged in the occupation of a shepherd, and whose testimony is deserving the most serious regard.

He says,—"For more than half a century I have been engaged in the management of sheep, and during that period I have not been inattentive to the misfortunes, the evils, and the ailments to which they are liable, and amongst the rest, the ROT has not a little occupied my attention; and with the greater assurance I can point out its symptoms, its progress, and termination, for I resided a long time on a farm where it was the prevailing disease, and from which, all who were connected with the concern dreaded the greatest annual loss. Disease in sheep is often caused or strengthened by improper management, and none is more easily engendered by harsh treatment than the rot: from this cause it is often difficult to determine whether it proceed from the morbid qualities of the soil, or from some adventitious event in the animal's life.* But, after all, I lay it down as a position that need not be controverted, that the original or pre-disposing cause of the rot exists in the qualities of the pasture; it is this which marks the peculiarities of the constitution, and gives that flow of spirits which actuates the animal and adjusts every movement in the system. Pastures which abound with soft, flashy nourishment dispose to this disorder; grasses of this description spring early, are rank and juicy, and are eaten eagerly at that season when other green herbage is absent; the scarcity of verdure, and its own succulence, induce the sheep to eat it very close to the surface; the soil, vigorous and strong, pushes constantly forward more of the delicious and deleterious sward, yet not until late in the season does it attain luxuriance, as the stock constantly keep it bare. Other grasses, more firm and consistent in the blade, at last arise, but they are coarser, and in proportion as they are so, are rejected, and the soft, *tathy* verdure still constitutes the principal portion of their food; the animal's taste by degrees is perverted—it can then relish no other food than this washy sustenance, which imparts no consistence or vigour to the muscular and more essential parts of the body, and all its influence is directed to the increase of the viscera, and every inability arising from constant repletion: the stomach and bowels increasing to an extraordinary bulk, become an unmanageable weight, too heavy for the constituent parts to carry about with that facility necessary to its thriving, and by degrees the animal acquires *a bad shape*; the belly and hind-quarters become heavy and lumpish, the fore-quarters low, narrow, and contracted; the lungs are obstructed in their full play, and often one of the lobes adheres to the ribs, and this farther impedes their motion; at every respiration the cells of that master organ are neither sufficiently *filled* or *emptied*, and for want of this vital air the blood is tainted; every extraneous humour increases, a general debility prevails, and symptoms of a confirmed rot appear. And the feeding on this raw, immature sustenance to such excess, as sheep once habituated to it ordinarily do, opens another way for the introduction of this disease; the fluid contained in the unripe food engenders a great deal of serum in the abdomen, which is diffused through many parts of the body, and this not being a natural fluid, further debilitates the constitution; the animal lounges about on the soft, tathy spots, when the general waste of body falls into a morbid tumour under the chin, called the *poke;* a violent diarrhœa then appears, and the poor creature dies miserably. And feeding on such unwholesome grass, to the exclusion of every other kind of food, confines the animal on such low, damp spots as produce it; here, at every inspiration, plenty of rank miasma is drawn in, which settles in the lungs, and loads their cells with a phlegmy, viscid matter which with difficulty is coughed up, especially when the animal is excited to motion—a consumption is then completely formed, for which there may be said to be no cure.

"The symptoms of the rot are these. About the latter end of February or beginning of March, the wool loses its healthy colour, becomes bleached and dead like; then follows considerable prostration of strength; late in *leaving* the tathy spots of pasture, and early *on* the next morning, and probably would not leave at all, if not urged away by the shepherd; falls back in the ranks when the shepherd moves them forward; a sullen, lustreless eye, looking steadfastly at the shepherd, with an œdematous swelling under the chin. When dissected after death, the internal symptoms are, lungs entirely wasted, often hanging like empty bags; liver, in every case that I have ever seen, increased to an extraordinary weight and size, studded all over with hard white spots; cut any of its ducts, and the fluke-worms issue out by hundreds, immersed in a bilious-like liquor. These creatures I consider the *consequence* and not the *cause* of the rot; their extraordinary increase being no doubt *owing to the diseased state of the liver*, in which they multiply to such immense numbers as to ac-

* How often we witness this inveterate disease, as well as the scab, cleave to the flock for many months after a sea-voyage, and from which many never recover!

celerate the death of the animal. There is always a quantity of serum loose in the abdomen, in which the bowels float, and over the whole carcass are sundry yellowish spots, which are, not unfrequently, where fat should exist.

Excess of fluid, therefore, in those varieties of grass which the animal selects for its food, and a deficiency of those firm, consistent varieties which are peculiarly adapted for strengthening the stomach, for animating and establishing the muscular system, I take to be the *radical cause* of this disorder; yet secondary or exciting causes may operate with such force and vigour as to unhinge the best constitution and dissolve the best constructed parts, and when this is done, the rot is always the consequence." *

Improved Farming.

It is admitted that we may learn the principles of farming by *study*,—then why, in the name of common sense, may we not study books? Why should we be compelled to grope along in darkness, when we may walk firmly and securely, would we but open our eyes! A young man comes into possession of a farm of poor light soil, upon which his predecessors raised by dint of much labour a small crop of hay and potatoes, and a smaller crop of stinted corn;—now shall he toil on all his days in ploughing, sowing, and cropping his fields, in the same way and with the same results? or rather, would it not be better to farm a little by book, to learn the nature of soils and the different effects and qualities of manure; to introduce the culture of other crops, and thus by a little book science double his produce and the value of his land at the same time? It is allowed that even those who have a horror of book knowledge, adopt improvements as soon as they can see them practised with success in their neighbourhood; but they adopt *only* when they see them; and if all others were to do as they do, nothing new would ever take place amongst them. To be sure, there are some new modes of cultivation and new articles of culture which find their way by this mode, but they are introduced too slowly; they do not keep pace with the improvements of the age: the good old way is adhered to, merely because it is old, and a thorough contempt is often felt for new things, and especially if they are taught by book, merely because they are new. It was this spirit and feeling that was the cause of many of our most valuable crops remaining for years out of cultivation in many parts of the country, while elsewhere they had been introduced and found to be of immense advantage to the cultivators of the soil; and the ruta baga and other roots are as yet but partially known, and scarcely tolerated even now. It was forty years after spinach was introduced into the gardens of the opulent, before it could be purchased in the Boston market; the pie plant, or rhubarb, was twenty years in coming into favour; the tomato, nearly as long; while the sea kale, one of the most delicious vegetables known in England, has not yet been able to tempt a single cultivator. But this spirit is not confined to *our* farmers and gardeners; for the medical faculty of Paris proscribed as poisonous the potato, one hundred years after that plant had raised millions of vigorous troops, who, under Marlborough, had again and again beaten the finest armies of France!

And I repeat, how few of our farmers make any improvements, save those they see instituted by their nearest neighbours! But why a man may not as well learn from the results of his neighbour's experience and science, when stated in a book, as when seen on a farm, it is difficult to conceive: assuredly, the man who, entertaining a contempt for scientific cultivation merely because it is *book knowledge*, will soon find himself growing worse in his circumstances; while his enlightened neighbour will be taking advantage of the improvements arising from the study of the science of agriculture, and bettering his condition. To this science, obtained by reading and study, is Mr. Coke, of Holkham, indebted for the unparalleled increase in the value of his estate. Some sixty years ago, he inherited a tract of poor land in the county of Norfolk of the value of $8000 per annum, but by reading and study, he has raised his income to $200,000, or 24 times its original value! But if he had only adopted what he *saw* his neighbours do, his whole estate would at this time have been a vast rabbit warren!—*Far. Reg.*

How to keep a Cottage Cow.

Plant sugar beets, fifteen inches apart, in every spot or space, nook and corner, of your garden, which you can possibly spare from other purposes; as, also, in any vacant lot which you can borrow or hire. If the land is worked well and early, they will require but two or three light hoeings; and will grow large enough, oftentimes, to afford a mess each, with the addition of a quart of shoots and a sprinkling of ground oil cake. Here, then, is sugar, gluten, starch, and oleaginous matter to boot; and with such food, a cow needs but little hay.—*New Gen. Far.*

You may talk about plaster of Paris, lime, marl, and stable manure, for an exhausted soil, but all in vain, if there is not energy and industry to apply them.

For the Farmers' Cabinet.

Practice and Theory.

Mr. Editor,—Now how strangely people will differ on the most familiar topics! It is seldom, indeed, that farmers can be brought to think exactly alike on many things relating to their business; the theory and practice will vary a little, and conclusions will be drawn from the same premises that will by no means harmonize to an exactitude, although to common observers there is no reason why there should not be the most perfect agreement.

To many, the very opposite accounts which are given—all resulting from experience, too—of the produce and value of peculiar crops, the various implements of husbandry, modes of management, the manner of preparing and applying the different kinds of manure, lime, plaster, &c., will appear a hopeless business to reconcile; and yet, with men who calculate and examine with a view to set at rest these discrepancies, it often happens, that they are enabled to discover much rhyme and reason for these prejudices, while common folks wonder that the same ostensible causes do not always produce the same effects.

At a late meeting of practical men, a strong preference was given to the use of Prouty & Mears' plough, its chief recommendation being that it takes up and lays over the furrow perfectly flat; and this peculiarity was declared to be the perfection of tillage: but I have since met with an excellent practical observer, who, after using this plough for two years, has abandoned it, under the conviction that the injury arising to his crops from the use of it, has amounted to 100 dollars per annum! Now, how is this? Why, just thus: the first-named persons are cultivators of deep, dry, free-working soils, which, when turned over flat, are still sufficiently loose and friable to be operated upon very effectually by the harrow or drag; and then the advantage of casting every thing foul and weedy to the bottom of a deep, wide furrow, and covering it with a completely flat furrow slice of fine light mould, the land showing like a well-pulverized fallow after the crop is sown, is, in their estimation, very great, insuring almost double crops, at a much smaller cost of management, the weeds having been smothered and completely destroyed in the operation of ploughing: while the person opposed to the use of this plough occupies a stiff, retentive soil, which, if turned flat, resists the operation of the drag, and becomes an almost impenetrable surface, *lying dead*, as he terms it, and into which the roots of the crops cannot make way; and thus he accounts for the loss of his acreable product to the amount above estimated. But all this evil he finds remedied by using a plough which lays its furrow to an angle of 45 degrees; it lies lighter and drier, affording plenty of mould by dragging down the aris or angular edges of the furrow to cover well the grain; and yet the furrow-slice is not *set on edge*, as the enemies of this plough contend, but lies sufficiently over to *lap*, so as effectually to prevent the herbage from springing up between the interstices; and in wet seasons, immediately after sowing the crop, such lands will remain dry and pulverized; while those turned completely flat, will in such circumstances become mere *hard pan*. Now this appears perfectly rational, and carries conviction to the mind of every practical man, and every one can understand it.

It is just so with the roller; the use of it has been urged in the strongest manner, and it has no doubt been found to be a most valuable implement on many a light land farm, while the indiscriminate use of it on a clay land farm would, in many cases, be the most improper that could be imagined,—and this is perfectly rational also. Then again, the question as to the propriety of feeding off wheat in the spring by stock; a plan which has been found at the same time of the greatest *service* and *injury* to the future crop, merely because it has been indiscriminately adopted on soils and under circumstances which were dissimilar in their natures and properties. And then, what a difference in soils with respect to their capacity to bear the liberal use of lime; for while some are benefited by the lavish expenditure of 500 bushels per acre, others are rendered sterile for years by the application of 60 or 80 bushels. And while with some the use of plaster is all-important, by others no good whatever has been experienced by the most careful application; the difference no doubt arising from the nature, situation, and circumstances of the soil. And even in the article of barn-yard manure, how often do we hear persons contending for the most proper season and state in which to apply it; some considering, with Sir Humphry Davy, that the best mode of using it is *fresh as it falls;* while others prefer to reserve it until it is dried to a *pinch of snuff!* A third party, however, and more rationally, it is believed, consider that until fermentation has taken place, no dung can properly be said to be a *manure* to the crop; *that* having passed, however, and the impure gases having had time to escape, the sooner it is then applied the better. Then comes the question, whether it is best to turn it in by a *deep* furrow, as has been the practice for years, because "all animal manures have a tendency to rise in the soil, while calcareous manures sink in it;" or whether it be not the

best way to use it as a top dressing to the grass lands in spring and autumn, suffering it to be grown in by the crop, that it thus might yield its benefits by being gradually decomposed in *light and heat*; furnishing, in the state of water impregnated with the fructifying principle, the pabulum of plants—the only mode, it is contended, in which it can be taken into circulation by the plants.

These, and about a thousand other considerations, press upon the notice of the practical man, and demand his examination and serious regard, filling every instant of his time with matter for deep reflection, and calling for the most careful investigation. And yet, farming has been considered merely a resource for the unfortunate; an employment which might be taken up by those whose natural abilities are not equal to the pursuits of trade or the learned professions! No wonder, then, that farmers are deemed to be the least enlightened class of society; and, as if to make the matter worse, they are the *only class of men* who themselves advocate *openly* the non-necessity—nay, worse than that—the inexpediency of reading and study in their operations—strange and unaccountable as the fact appears. V.

April 18, 1841.

To the Editor of the Farmers' Cabinet.

Sugar Beet for Spring Feeding.

Sir,—I have for a long time been halting between two opinions, as to the value of the sugar beet as winter food for stock, and really have been puzzled with the conflicting testimony of parties, for and against. A visit to a friend in an adjoining state, which I have been induced to take at the suggestion of your correspondent at p. 205 of the Cabinet for January, and whom I can bear out in the remark, that such a mode of expending a small sum is the cheapest and best way in which a man can study the science of agriculture, has, however, brought me *short about*, a strong advocate for its cultivation, and I will tell you why.

Before I left home, I was wondering within myself, how my poor stock were to subsist another month without a supply of fresh provender: my hay-barn and corn-crib began to show signs of atrophy, the ribs of the latter rattling in the wind like a dried skeleton; with scarcely a blade of grass to be seen in the pastures, into which however, I had been compelled to turn the poor creatures, in the hope that they might be able to pick up a little to help out; knowing all the while, that what they could extract from the roots of the sod must be at the expense of the coming crop of hay. In this state of mind and feeling, I reached my friend's house, and was infinitely surprised to find him feeding all his cattle and sheep, and indeed I might add hogs, which also came in for a share, *to the full head*, as he termed it, with sugar beet, which he had reserved for this particular season, as a link between the winter and summer crops, the value for which purpose, to use his own words, was "quite above all price." Said he—"While many are debating about the quality of the beet, and are not able to determine whether its cultivation be the greatest good or the most considerable of evils, I have gone quietly on, sowing regularly the quantity necessary for my winter consumption, being careful to preserve a full supply for the whole month of April, without regard to the stories that are told about its different and very dissimilar properties; and now you see me with plenty of food for every living thing about me for a month to come, obtained at a most trifling cost of production; for, from about an acre of land, I harvested a mountain of green food, to mix with my hay and straw, which have now become dry and hard from keeping: and by these means I am able to keep all my stock from the meadows and pasture until May—a perfectly incalculable advantage; for thus I am not only feeding them *this year*, but adding astonishingly to my means for the next winter, as I almost fancy that by so doing I am able to mow double the quantity of hay that I used to do. And this is not all; for the large quantity and excellent quality of the manure which I thereby obtain, is of far more value to me than all the labour and expense of cultivating the beets, twice told. You see that my stock are in good condition, contented and happy, confined to their winter quarters, and not permitted to roam abroad, to the destruction of the fences, the loss of their dung, and the absolute annihilation of the future crops of hay; and if these are not advantages sufficient to induce us to go forward with the cultivation of the beet, I should be glad to be told what more we have a right to expect? Let others argue what is the value of such a crop for winter-food, and especially for spring use, while I am too happy to be able to create a *summer* amongst my stock during the most dreary winter, and preserve my spring crop of grass, by the very trifling devotion of about a single acre of land to their cultivation. I repeat, my extra manure pays me for all my extra expense; and my peace of mind is above all price." I thought of my poor starving animals at home, and shortened my visit, that I might return and be prepared to practise the doctrine which my friend had been preaching.

John Lacey.

Schuylkill County, April 1, 1841.

For the Farmers' Cabinet.

Remarks on the Cabinet.

Mr. Editor,—At our last Wednesday's meeting at the store, which was very well attended, much praise was bestowed upon the Cabinet for having rescued from oblivion, by means of a remarkably well executed portrait, and exact admeasurement, the noble Ox "Pennsylvania." Great interest was taken in the subject, for many had fed large beasts, and others were doing so, and such a document as that would be preserved with care for future reference. One of the members mentioned particularly, that Mr. Sheaff, of the Highlands Farm, Whitemarsh, is now feeding an animal, of which your engraving is an exact likeness, and, what is more, that his feeder is as truly pourtrayed in the Cabinet as is the ox; and it is expected that this ox—whose name is "Tippecanoe"—will, when finished, weigh perhaps 500 pounds more than the "Pennsylvania." He is a magnificent animal, and all agree, that if any one can do him justice in feeding, it is his owner, whose care, attention, and neatness in all farming operations, constitute the theme of general admiration. This spirit of emulation must be productive of infinite good, it is the sweetener of the labours of the agriculturist.

The attention of the meeting was drawn to the article contained in the March number of the Cabinet, on emigration to the Delaware and Maryland peninsula; many members were well acquainted with that part of the country, and bore willing testimony to the truth of the description there given of its advantages, which were not considered by any means overwrought. One member related the history of a colony, who, some years ago, removed thither from Delaware county, with the brightest hopes, which, however, were never realized, although no fault was found with the country, properly speaking—but their prospects *went out;* and those who did not remove, were left to wear away their existence without energy or hope, and yet none complained of disappointment of their expectations of cheap lands—neither did they attribute their failure to the unhealthiness of the climate, admitting that other parts of the country are worse in this respect; but still there was a *something* which sapped all their exertions, and silently undermined their confidence—a sort of gangrene, which preyed upon the bud, and prevented the developement of their best-laid plans! Now, it was reasonable to inquire the cause of this unnatural state of things, and it was believed by some to be owing to the spirit of slavery, which, like the leprosy, admits of no palliative, enervating the whole system; for where that exists, be it in ever so slight and modified a degree, labour is disreputable, and the sweat of the brow, without which no man can cultivate the ground, is deemed a curse; while, on the contrary, labour is, in reality, the greatest blessing of life—for without it no man can be either healthy or happy, the greatest *curse* being freedom from labour, and so our judges consider it, for whenever they condemn a man to the severest punishment they incarcerate him in a prison and prevent him from labouring! In this conversation no allusion whatever was made to the state of the bondman, but to the *effect* on the land owner, considering this to be the cause of the paralysis which falls on those who purchase lands in that otherwise very desirable part of the country.

One remarkable circumstance, relating to the connexion of the society with the store, is, I think, worth mentioning—by it, I find that I dispose of a far greater quantity of hardware and carpenters' tools, while the sale for nails has increased a hundred fold; this I attribute entirely to the improved taste and relish for comfort and neatness which have been created and are fostered by these meetings, for many who had been accustomed to see their fences and parts of their premises waving in the wind for want of a nail or two, are now shamed by their neighbours into a more tidy way of doing things; and this, too, is the cause of my selling a much greater quantity of paint, for after a place has been repaired, its owner finds that a little paint would add greatly to its appearance, and many have discovered the truth of the Dutch proverb—*paint costs nothing*—meaning, the preservation of the wood is quite equal to the value of the paint bestowed upon it. And indeed it is astonishing how much can be done with very small means by a man with a little genius in the way of repairing, and a few handy tools. I once knew one who came a stranger into the country, and purchased a small and very poor house in a garden, out of which he contrived to manufacture a little Eden! The house consisted of two rooms only on the ground floor, and two above, with a wide passage through the house from front to back. He began by removing the front door, and erecting a circular building, a sort of large porch, taking in the passage as far as the entrance to the two rooms from the back; this gave him an extra room, and by placing a second-hand window in front, and another in each end, he obtained one of the prettiest little boxes imaginable, with balcony; these windows were furnished with white curtains inside, drawn up in neat festoons, the walls were hung with book-shelves—and this he called his library.

By this he was restricted to one door

to his house, but by placing around it some cheap trellis-work, made of laths, he constructed an arbour and furnished it with seats, which, when covered with shrubs and flowers, gave an appearance of elegance and comfort which would induce a man to stay *at home* in preference to going abroad — a choice recipe in the management of household affairs. The walls of the house were ill-built with rough stones, but these were soon covered with a coat of plaster and whitewashed, and no one would know what it had once been by seeing it in its state of improvement. And all this was done at a mere trifle of cost, for he was his own bricklayer, mason, carpenter, plasterer, and painter! Now, there are many such small tenements around us, which only require the hand of an industrious man to turn them into Edens too. Your constant reader and well-wisher,

JOSHUA SHARROLD.

Schuylkill County, March 29, 1841.

Plethory.

I HAVE become quite enamoured with your system of improving pasture lands and poor meadows, and as my neighbours are nearly all going into it, I have concluded to follow. I have fifty acres of bushy pasture land, and twenty acres of poor meadow. Now, if I improve all my pasture lands, so that I can keep a cow to an acre, and I believe I can, I shall have to keep forty-two cows, and four pairs of oxen. And if I make all my meadows produce three tons of English hay per acre, and from what I have seen, I believe it can be done, I shall have winter keeping enough for such a stock. But what puzzles me, is to find out how I can take care of such a dairy, and make my hay in any tolerable season. I have mowed bushes till my constitution is broken down. I have but one son, and he is good for nothing, but to smoke cigars and shoot boblincolns. My wife is good on a milking-stool, as any of our ancestors were; but what can *she* do with two and forty cows? As for my girls, they have sour stomachs in the morning, and cannot rise soon enough to milk the cows by more than two hours; in the afternoon, they must play the piano, receive company, and make visits; and at evening, they are riding horseback, so that *we* derive no assistance from them, nor is it likely that any other person *ever will*. What can I do with such a dairy? Butter was down last summer to fifteen cents a pound, and if every one is determined to improve his pastures on your plan, butter will not bring more than four-pence two farthings in a very short time. Where in nature will be the profit on my dairy?

Again, if I must cut fifty tons more of clear English hay than I now do, and all other farmers go the same figure, we cannot more than get done haying, before it will be time to begin again. Our boys cannot work in the field with a Spanish cigar in the mouth, a silver-headed cane in the hand, and gloves on! They will dirty their clean dickeys! Must we hire Irishmen to do the work on our farms? Shall we hire yankees? I hired three of them last year; one of them kept a private bottle, and became so turbulent that I dismissed him. Another stole a gun, &c., and went to jail; and the third stole, and ran away; and I finally had to do my work myself. But I cannot do all my work when I have made such improvements on my farm, that I can keep forty-two cows and four yoke of oxen. Where can we get man-servants and maid-servants?

Again, my barn is now even full of English hay; and when my meadows are improved by ploughing, I shall cut from fifty to sixty tons more, and must build another very great barn. And when I can winter fifty head of grown cattle, I shall have manure of the very best quality, sufficient to cover my farm all over in about three years from this time; and then again, my English hay will be increased two or three fold, and then I shall have to build two more *great* barns. Had I not better buy a considerable piece of land to build my barns on? In short, difficulties multiply on every side.

I want your advice, Mr. Editor. I am not in the habit of taking advice from a lawyer, but in this case I want your advice.—*Boston Cultivator.*

Remedy for the Black Weevil.

HAVING never seen any remedy for the black weevil, which has proved so destructive to the wheat crops after they have been housed or garnered in this part of the country, and I suppose generally through the whole of the wheat growing countries, I would state, for the benefit of those whom it may concern, that I have discovered a sure remedy, so far as my experience has gone— say for the last five or six years — which is simply this: — One sack of Liverpool blown salt, thoroughly mixed with one thousand bushels of wheat, or half a bushel of salt to one hundred bushels. Since I adopted this plan, I have not seen a black weevil in my wheat, or houses where it is stowed away, although kept until it was very old: but before this, my wheat was very often so cut and spoiled, as to be rendered totally unfit for bread or market. The quantity of salt here recommended, is not sufficient to injure the wheat in flavour or taste; and the remedy will be found as efficacious when applied to rice.

J. P. WEBB.

To the Editor of the Farmers' Cabinet.

Glanders in Men.

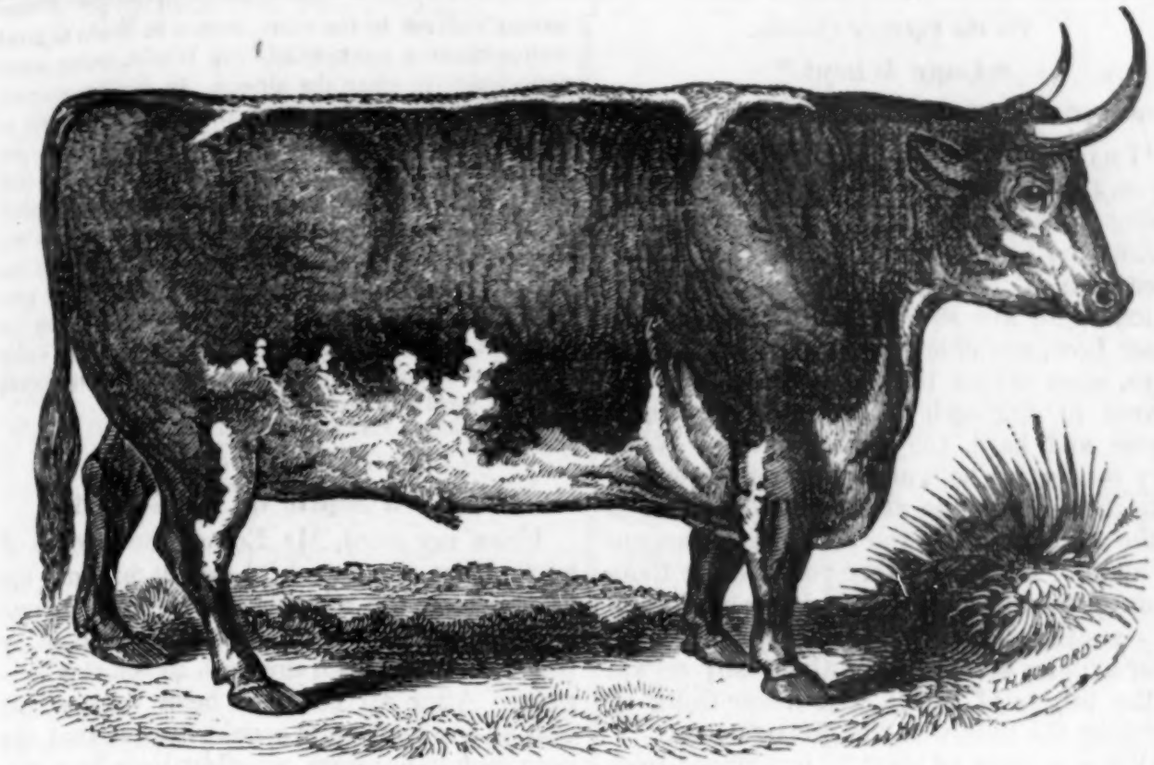
Sir,—There is a highly interesting article in the London Sporting Magazine for January last, upon this frightful disorder, which, until lately, had been considered peculiar to the horse, the mule, and the ass: late experience, however, has shown, that the poison is not confined to these, but that the human subject is as liable to be affected, as either of the animals above-mentioned. This is a truth of great importance to those whose business and profession call them much amongst this kind of stock, and it cannot be too well or too extensively known, that many instances of death in its most awful shape have unquestionably taken place from contact with the animal while under the effects of glanders.

M. Waldinger was the first to direct attention to the liability of man to be thus affected; urging the greatest precaution in going amongst glandered horses, as the severest injury, and even death, often arises from *inoculation*. He relates, that a groom had his fingers affected with inflammation in consequence of operating on a diseased horse; tumours, precisely similar to those observed on the horse, were soon developed in his limbs, and he was at length cured by filling the wounds with small pieces of lint or cotton steeped in turpentine. Sidon, another veterinary surgeon, states that glanders is transmissible from the horse to the man, causing the worst kind of ulcers; and even mentions a case where a *horse* took the disease from a farrier, who had a glandered sore on his hand, which came in contact with the animal while he was giving him a ball: both died of the disease! A groom slept in a stable at Paris, occupied by a glandered horse; some days after the death of the animal, the groom was attacked by the same disease, which was characterized by pustular and gangrenous sores over the body, the nose, and the throat, below the ears, on the glands, and on the feet. He died on the 12th of February, 1840; and on the evening of his death, a small quantity of matter was collected from the gangrenous wounds, with which a foundered mare was inoculated: in three days the disease had commenced progress, and at the end of twenty-one days from inoculation, the wretched animal was put out of its misery, covered with gangrenous ulcers, which had prevented her from opening her mouth to take food. Thus it was proved, that it was the glanders the man died of, as a horse, otherwise healthy, had been impregnated with that disease by matter taken from him after death. It should be borne in mind, that this unfortunate man only slept in the stable, where had died a glandered horse; he must therefore have taken the disease by *contagion*. This conclusion should serve as a warning to all, how careful and cautious they ought to be, when necessity compels them to have any communication with glandered horses. M. Leone, a veterinary surgeon in a dragoon regiment, in perfect health, was called upon in his professional capacity to operate upon a glandered horse in the regiment: after the operation, he introduced his finger into the wound, to explore the extent of the sore; he had unfortunately a slight bruise on his finger at the time, which in a few days became much swollen; it was extremely painful, and soon covered with fungus-like growths: the wound was cauterized, when he felt the presence of several painful, hard swellings, in several parts of his body, which formed abscesses; and six weeks after the operation, they had extended to the knee-joint and instep. He had the assistance of many physicians, but without any success: tumours formed and soon broke, and still remain open.

Very recently, a young man, a groom to a nobleman, who had the charge of a glandered horse, was in the habit of wiping the face of the animal with his pocket-handkerchief, by which the disease was contracted, and he died in one of the hospitals in excruciating agony, every bone in his head being perfectly carious! These melancholy details lead to the conclusion, that a man is liable to the infection of glanders—a disease hitherto supposed to be peculiar to the horse, the ass, and the mule. It is also ascertained, by inoculation, that the farcy is only a modification of glanders, and may co-exist with that disease. But inoculation is not absolutely necessary for the production of glanders, either in man or beast, for sometimes the simple coming in contact with glandered animals produces this disease; from which we infer that it is contagious, and that glanders in a severe form is an incurable disease, both in man and beast.

The writer had once the charge of a great number of horses on a rail-road, amongst which was one suspected of being glandered: she was a very valuable mare, but the moment suspicion fell upon her, she was removed to other quarters. A veterinary surgeon, on examination, pronounced the disease to be a slight case of glanders, proposing at the same time to bleed and physic the whole number of horses on the road, about fifty in number, as a precautionary measure, and to take the mare into a regular course of treatment. It was thought to be the most *regular course* to shoot the mare at once, which was done out of hand, and there was an end of all anxiety and expense; the doctor himself admitting that by these measures he had been deprived of a long and fat job, amounting to the value of many glandered horses.

J. P.



THE HEREFORDSHIRE OX.

Mr. Marshall's description of this famous breed of cattle, is admirably pourtrayed in the above engraving; it is as follows:

"The countenance, pleasant and open; the forehead, broad; eye, full and lively; horns, bright, tapering, and spreading; chest, deep; bosom, broad and projecting forwards; shoulder bone, thin, flat, and no way protuberant in bone, but full and mellow in flesh; loin, broad; hips, wide and level with the spine; quarters, long and wide; rump, even with the general level of the back; tail, slender; barrel roomy, with carcase throughout deep and well spread; ribs, broad and standing close and flat on the outer surface, forming a smooth, even barrel, the hindmost large and of full length; round-bone, small and snug, and not prominent; thigh, clean and regularly tapering; legs, upright and short, with bone below the knee small; flank, large; twist, round and full; flesh, everywhere mellow, soft, and yielding pleasantly to the touch, especially on the chine, shoulder, and rib; hide, mellow and supple; coat, neatly haired, bright and silky; colour, a middle red, with bald face.

The breeders of these cattle would do well to preserve the old blood in as great a state of purity as possible, for they possess one of the most valuable breeds of cattle in the world. The distinguishing qualities of the Hereford Ox are, the great produce of beef, quick feeding in proportion to their growth and size, with immense strength and speed in labour. With respect to the most profitable return in quantity of beef, it may be presumed that no breed in England can stand in competition with them, and they have accordingly been most successful at the annual prize cattle shows, commanding the first price, alive or dead. A writer observes: "This breed, so celebrated for producing quantity of beef, seems to combine all other desirable qualities—length, depth, substance, rotundity, fineness, yet sufficiency of bone. Their origin is supposed to have been a cross between the old Hereford and the Northern breed, and this opinion is strengthened by the remark of a Herefordshire breeder, who says, about 80 years ago, a Mr. Gallier, of the Grange, procured a bull from Yorkshire with a white face, and wide horns, and bred from him; the produce became fashionable, and actually laid the foundation of the present famous breed—and hence, the bald face of the Herefords; a breed which, conjoining beef and labour, stand on the summit: they fatten speedily at an early age, and will live and grow fat where others would scarcely subsist. It is, however, universally admitted, that as milkers they are inferior to the Devons and many other breeds, while compared with these, they are shorter in the leg, higher and broader and heavier in the chine, rounder and wider across the hips, and better covered with fat; the thigh fuller and more muscular, and the shoulders larger and coarser."

The weight of Mr. Westcar's Herefordshire prize Ox, 2192 lbs. the four quarters.

For the Farmers' Cabinet.

"Cone Wheat."

Extract of a Letter, dated March 17, Carroll Co., Md.

"I have often been astonished (when thinking on the subject) that no one as yet has introduced into this country, the wheats known in England by the name of *Turgid Wheat*, (Triticum Turgidum.) These species, of which there are several varieties, says Professor Low, are chiefly suited to the inferior clays, upon which they are extensively cultivated in England. Though the grain is coarse and hard, they are, *on these clays*, very productive both of grain and straw.

In this country no attention has been paid to the suitableness of the soil, to any particular plant or variety. Here you will see them planting turnips and carrots, and sowing barley on stiff clays; and in like manner with other articles of culture, without any regard to the fitness of things, and never think of charging the failure to the proper cause.

When a grain or plant is introduced from a foreign country, it is not because of its adaptation to any particular soil, but of some intrinsic excellence, and the proper kind of soil is left entirely out of view. Hence one great cause of the difference of opinion, on the many articles introduced from time to time.

Low mentions a variety of the turgid wheat, called "Cone Wheat," as being the most highly esteemed; which, if introduced into this country, would be a great acquisition to such of us as have these inferior clays. A large portion of my farm is of this description, with a great deal in the neighbourhood and some of the adjoining counties; besides, Adams, and part of York counties in your state, have very much of this kind. On many of these lands, the crop of wheat fails more or less every year, in consequence of sowing the finer kinds; and perhaps no one but myself has thought on the introduction of a wheat to suit this kind of soil. I think the individual that would introduce a variety for this description of soil, would really prove himself to be a public benefactor.

D. Z."

We are well acquainted with the variety of the "Turgidum" here spoken of. It is very coarse in the straw; grows sometimes to a great height, and often yields abundantly, even on poor, cold soils. The ears are remarkably large, and full to the eye, having a square form and well set; but the chaff is extremely thick and heavy, and covered with a white down, which covering is a most perfect preservation to the grain in a wet harvest, the rain not being able to penetrate, even after days of incessant falling. In such seasons, the crops of Cone Wheat are very valuable, and bring the best prices of the best white and red wheats, as they are in request to grind with the finer varieties, which, having suffered by the rains, cannot be made to grind well without a mixture of Cone Wheat, being added periodically to clear the stones. In kindly seasons, Cone Wheat never commands the highest price, for at best it is an inferior sample, and the flour from it is not fine; but as a resource, or a crop for a cold and thin soil, it can be taken with the expectation of a fair average crop, even under adverse circumstances. No wheat crop is so beautiful while growing, nor is it liable to be blown down, the straw being reedy and partially solid, which quality, *it is believed*, would be the means of rendering the crop fly-proof. It is not liable to be attacked while ripe by small birds, the chaff being so thick, hard and close.—Ed.

For the Farmers' Cabinet.

Lime—a Septic or Anti-Septic.

Upon my word, Mr. Editor, the *science* of agriculture seems yet to be but slightly understood: if the *practice* of the art had not been better performed, I fear we should by this time have been brought to short allowance. After all that has been written and said on the subject, it would appear that the very simple question, whether lime be a septic or an anti-septic, is still unsettled, and as far as ever from a satisfactory adjustment. Well then, since the great folks differ so widely, I feel an inclination to try my hand at a theory of my own; and should I be ever so far from the truth, I cannot differ more from that, than your correspondents on the subject do from each other.

In the 3d vol. of the Cabinet, page 284, is an article in which the writer ventures, seemingly with much diffidence, to inquire whether it might not be possible that lime acts either as a septic or an anti-septic, just as the article is used in excess or otherwise; and he alludes to the well-known property of table salt, which operates exactly in that way—a small quantity bringing on fermentation, while a larger quantity prevents it altogether; acting in the first instance as a septic, and in the latter as an anti-septic. Now I would ask, first, whether decomposition can take place without fermentation? and second, whether fermentation can take place if either acid or alkali be in excess? For might not any animal substance be as effectually preserved from decomposition by being immersed in vinegar, as in lime-water? And does it not then appear pretty clear that lime, in proper quantity, might be the means of neutralizing an over-dose of acid, and thus operate as a septic by inducing fermentation; or if applied in quantity to form an alkali in excess, to prevent it altogether, and thus become an anti-septic? I repeat, therefore, can decomposition take place without fermentation? and can fermentation take place, if either the acid or alkaline principle be in excess? And is not this a law of nature?

A Young Examiner.

To the Editor of the Farmers' Cabinet.

Draining.

Sir,—Although much has already been said on this subject, the all-importance of which is acknowledged by every one who has witnessed its surprising effects, it is by no means exhausted: by its general adoption on a farm requiring such a course, the very seasons and climate are changed; the health both of man and beast is benefited, and the farmer has a *longer* summer and a *shorter* winter, in the first to prepare for, and in the last to provide for, his out-door stock and his in-door family; for by its ameliorating influences he is enabled to enter upon his land for spring tillage earlier by about ten or fourteen days, and in consequence his harvest might be expected to fall earlier by about that space of time; and no practical man need be told the value of a system which would insure to him such incalculable advantages. And then the *quality* of the crops is as much superior as the *quantity;* the wheat a finer sample, brighter and heavier, and freer from blight; the root crops clearer and larger, with more saccharine; the corn larger, longer, and better filled; and, what is perhaps of more immediate importance than all, the yield of fodder is larger and sweeter, more palatable, and more nourishing; and the dung-hill—that bank of deposite, which pays its dividends quarterly with a punctuality which is a *caution* in these degenerate days—partakes of the virtues of all, and yields from 25 to 50 per cent. upon the capital employed, with a stock always at par. In a Scotch work on Draining, I find the following most interesting observations, which are so peculiarly in *keeping* with what has been said, that I cannot forego the pleasure of copying a few extracts for publication in your pages.

"In its train follows every other improvement, and much of the perfection of husbandry is to be attributed to it; for although silent and secret in its operations, like wholesome medicines, draining has renovated the constitution of the soil, and suffused a health-bloom over the face of the country: the humidity and variability of the climate operating upon the inferior soils which occupy so large a surface of the country, have been much ameliorated by it, the climate being milder than it was half a century ago. Agues and intermittent fevers are now unknown: the recent mildness of the winters, the absence of frosts and snows of long duration, and the presence of hybernal vegetation, indicate less ability in the soil to emit those dank exhalations which return in rain and snow from the atmosphere in its changeful flittings over the land. An examination into the manner that humidity affects the soil, will enable us to ascertain how draining first ameliorates the soil, and then the climate.

When rain falls on the ground, part of it runs off by ditches, &c., into the rivers, but the greater part is absorbed; and that which is retained *under* the soil on impervious layers of earth, remains to effect incalculable mischief; and while this hidden water remains, manure, whether putrescent or caustic, can impart no fertility to the soil; the plough, the harrow, and even the roller, cannot pulverize it into a fine mould; the grass yields no nutriment for live stock, as the finer sorts disappear, and their places are usurped by the coarse, aquatic plants: the stock can never receive a hearty meal of grass or straw from land in such a state; they are always hungry and dissatisfied, either lax or bound in their bowels, and of course remain in low condition and subject to all kinds of disorders. The trees acquire a hard bark and stiffened branches, and soon become the prey of innumerable animalculæ. The roads are constantly soft and cut into deep ruts; the ditches and furrows are full of water—suitable receptacles for all sorts of reptiles;—the circumambient air is always damp and chilly, and from early autumn till late in the spring, the raw hoar frost meets the face like a wet cloth morning and evening. In winter, the frost incrusts every furrow and plant with ice, not strong enough to bear one's weight, but just weak enough to give way at every step, while the snow lies lurking in crevices behind the sun until late in the spring—fit feeding ground for the woodcock and snipe; and in summer, mosquitoes, green flies, midges, gnats, and gad flies, torment the cattle, the labourer and his horses, from morn till night; whilst the sheep get scald heads and are eaten up by maggots during the hot blasts of sunshine. And this is no exaggerated picture, for the eye cannot turn in any direction scarcely, without falling on land that would be greatly improved by a regular course of draining: the cost would of course be considerable, but the increase of the first crop after, would repay the farmer, be that what it may.

No drain ought to have a smaller depth of stones than 18 inches, nor a smaller depth of earth over them than one foot—thirty inches deep in all. Much has of late been urged in favour of making the drains up and down the declivity, but to this there are serious objections; the rapid descent of water in drains is incompatible with good workmanship; it is sure to gutter the bottom of the drain, and blow it up: the more easy the egress of water, the more regularly and gently will it run away, and the more effectually will it draw the land dry. This species of draining possesses the advantage of being applicable to

any soil where it is required, and will relieve it from stagnant water, both on the surface as well as in the subsoil. Were the soil thus fertilized, the produce of any country, whether grain, straw, grass or roots, would be increased many fold, while employment would be provided for agricultural labourers for many years. And one sheep per acre kept additional, or five bushels of grain raised more per acre, would add millions a year to the wealth of any country."

John Taylor.

Berks County.

For the Farmers' Cabinet.

The Climate of America.

Mr. Editor,—The late Mr. George Walker, of Holmesburg, observed to a friend, that after eighteen years' residence in this country—during which he had never lost a turnip crop—he could not be induced to return to England to battle with the elements. His estimate of the value of an American climate to the grain and stock farmer was high indeed, the Indian summer affording ample opportunity to raise turnips to any extent, after full crops of grain had been carried and safely housed—an almost incalculable advantage: and I have often seen on his farm a heavy crop of turnips, after the same land had yielded a crop of the finest and brightest wheat, amounting to forty bushels per acre. Now if the value of two such crops be joined to the advantage of feeding stock on the turnips during winter, with the straw of the wheat crop as bedding for the stock, and an estimate of the whole be drawn, with no drawback in the shape of tythe, tax, or poor rate, and about half a dozen other "rates," his conviction that his farming operations were conducted in this country 25 per cent. cheaper than in England, was no doubt well-founded.

I well remember seeing the last of the crops—horse beans—carried one year on the 24th day of December! and this, too, was in the Isle of Wight, the garden of England; while I myself have had a crop of oats covered by two feet of snow while lying in the field. And I have now before me a retrospect of the year 1836 in Scotland, where it is said, "the prevalence of cold, frosty, ungenial nights, during the months of May and June, endangered the vegetative powers of all growing grain; and then was predicted, what has since unfortunately been verified, a serious deficiency in the crops; the backwardness of the season and the retarded period of harvest having a most deteriorating influence on the quality as well as quantity of the grain, occasioned by the raw, wet and boisterous weather of the month of August, with chilling blasts from the east and north-east," leaving only the month of July for the season of ripening the grain! No wonder that the observation follows: "The wheat has proved coarse, thin, and irregular, having ripened irregularly and been cut, in some instances, partly matured and partly green, having also been hurried from the field, by which its condition has been much impaired."

The contemplation of such a picture is calculated to do us good; and by it I think we shall be able to understand how it is possible that the management of a well-cultivated farm can be conducted at an expense 25 per cent. lower in this country than in Great Britain, leaving an immense amount of ease and comfort in favour of the American farmer.

John Green.

Darby.

To the Editor of the Farmers' Cabinet.

Cooking.

Sir,—In the Island of Jersey, England, they have a mode of cooking which is peculiar to those Islanders whose governing principle is to make a little go a great way. Independent of this, however, when the process is properly conducted, the delicious flavour and richness which is communicated to the smallest quantity and inferior quality of the animal food employed, is a very strong recommendation for its adoption, which requires neither extra trouble or expense.

The meat to be operated upon, is first cut into steaks and fried with shred onions in butter, over a very quick fire, until it is well browned and about half cooked; it is then transferred altogether into a stew-pan, water being added sufficient to form a considerable quantity of gravy when the process is completed; and the whole is left to simmer for the space of six or eight hours, when, the proper seasoning being added, it is served up hot—a dish fit for a President! I well remember meeting some friends in London, who, on describing a dinner at which they were present the day before, the tickets for which were a guinea each, they all spoke in raptures of a dish of beef-steaks and onions cooked after this manner, declaring it to be superior to all the venison, game and poultry at the table. Will your readers try the effect, even with hard and tough meat of inferior quality; not, however, to the exclusion of that which is young, fat, and tender. I am, Mr. Editor, a lover of good living, but

No Epicure.

Half an ounce of alum in powder, will purify completely twelve gallons of corrupted water, imparting no sensible degree of astringency.

For the Farmers' Cabinet.

Profitable Mode of Stock-Farming.

Mr. Editor,—I think we plough and sow too much. The life of the farmer *need* not be that of incessant toil and labour, and I mean to try whether I cannot hit off a plan of making my cattle work for me, and take a great portion of my crops to market in the shape of beef—not of butter and cheese, and veal, twice a week—that is making toil of pleasure.

What I intend to do is this: I will purchase a lot of two year old heifers this spring, and turn them on my upper pastures, where there is plenty of shade and water, and put with them a pure-bred short-horn bull. They will be brought into the straw yard in the winter, where they will be fed with roots and cut-straw, and other fodder, and be returned to the pasture in the spring, with calves by their sides: there they will remain until August, when I shall wean the calves, putting both cows and calves on the best keep. During the winter the cows will be fed fat with roots, hay, and cob and corn meal, and sold to the butcher in the spring. The calves will be fully fed both summer and winter, and at two years old sold fat to the butcher, unless persons would prefer to give me an extra price for some of the handsomest heifers for stock; not contemplating, however, reserving any of them for my own use under any circumstances, but purchasing good-looking heifers at two years old from drovers, to turn to my short-horn bull; and this I intend to do every year, thus having always on hand animals of different ages to form a succession of fatting stock.

This plan will, I think, be profitable, and will relieve me of much of the laborious duties of tillage: the grazing of my pastures is not costly, and the foddering in winter will give me the means of dressing them and my meadows with a top covering in the spring, from which I expect to reap great advantage. I calculate that the half-bred Durham calf, when weaned, will be worth full as much money as the cost of the keep of the cow—sometimes, perhaps, as much as the cow herself; and there might be calculated from 30 to 40 dollars left for her winter feeding, besides the saving of labour in milking, dairying, and suckling the calves by hand. I may add, I never contemplate keeping any of the cows over the winter feeding, but selling all off, to make room for the next year's stock: thus, during the summer I shall be relieved from the incessant labours of the dairy, and be enabled to turn all my attention to the preparation of crops for the coming winter; which will, I am sure, be a blessed change from that system which I have been pursuing for the last years, carrying my butter and veal to market in the hottest and the coldest weather—a distance of 19 miles—and spending full a third part of my life, either by night or day, on the road to and from market—a course of slavery and hardship which no profit can repay, and which I mean henceforth and for evermore to eschew. James Neil.

Chester County.

For the Farmers' Cabinet.

Fermented Manure.

Mr. Editor,—I lay it down as an axiom, "that need not be controverted," 1st. That no animal or vegetable matter can, properly speaking, operate as *manure* to vegetable life, until after fermentation. 2d. That no animal or vegetable substance can, with impunity, be taken into circulation by living plants after putrid fermentation has taken place. To its destructive properties is to be attributed the death of the orchard of cherry-trees in Kent, as mentioned in a late number of the Cabinet,—the large quantity of stable manure which had been deposited in the trench, at a depth which prevented the escape of the deleterious gases on fermentation, became in consequence *putrid*; and when the roots of these trees had reached and penetrated this substance, and had taken up the poison into circulation, death was the immediate consequence.

I once carried abroad a large quantity of stable manure that had been long lying in a watery hole, until it had become quite putrid; and although it was spread as a top dressing on pasture land, but little benefit was ever known to arise from the application. A friend who keeps a large livery stable adjoining his land, dug a cistern to receive the drainage of his yard, in which there is always a large accumulation of manure, and kept a cart and cask to carry it abroad on his pasture and meadow land; but he found no benefit from it when it was allowed to remain in the cistern until putrid fermentation had taken place, and the liquid matter had begun to smell disgustingly, as he termed it. Another person, aware of the circumstance, has adopted a different mode to very great advantage: at the emptying of the cistern, he deposits in it a quantity of the finest mould he can obtain, and as soon as it is well saturated with the drainings of the yard, other mould is added periodically, until the cistern is full; it is then removed to some dry spot, and made into a neat heap, and after turning it up to induce a regular fermentation, it is carried as a top dressing to his meadows, and especially on clover, in the spring, where the effect is absolutely incalculable. P. G.

Darby, April 16, 1841.

Visit to a Holstein Farm.

Arrived at 2 P. M., and were received with great politeness by Mr. Hirchfield. After dinner, visited the stables; the first contained six carriage and two riding horses, all bays; also, a long-tailed black horse for the use of the dragoons, every gentleman being obliged to keep a horse subject to the king's order. This stable is 126 feet long, 44 broad, and 55 feet high: at the end is a carriage, wagon, and harness house. The next stable, under the same roof, was for 30 horses, standing in pairs: the whole is causewayed, and a space of 20 feet in the centre for threshing the grain; at the end are rooms for the men, corn-chests, &c., and a space above for 80 loads of hay, and two tiers of grain lofts.

We next visited the cow-houses: the first was 198 feet long, 70 broad, and 60 high, with four tiers of stalls for 240 cows: the standards are ten inches thick, and between each, a space of nine feet, stood three cows. A trough of solid masonry ran from end to end, about a foot deep and two feet broad at the top, for the food and water. All these houses have doors large enough to admit of a cart of hay passing through. The next cow-house is 96 feet long, 24 broad, and 30 feet high, with 58 stalls, and a large space to feed young cattle: the space above these stables will contain 400 loads of hay. Adjoining stands the large barn, 180 feet long, 70 broad, and 65 feet high. The new barn is 152 feet long, 64 feet broad, and 50 feet high.

The dairy-house is 125 feet long, 36 feet broad, and 50 feet high; the floor is laid with brick on edge, with a slope towards the centre, through which a stream of water runs. On the right is a store-house, and a dining-room for the servants, twenty-six in number; the fire-place or chimney being 12 feet wide; on one side is a fixed boiler, on the other are large sways for hanging coppers for dressing food, &c. Next is a neatly furnished room for the head dairy-maid, and behind that a room for a respectable old man, who superintends the whole of that department. On the opposite side of the building is a large bed-room for twelve female servants. The neat manner in which the female servants of the dairy are dressed, deserves particular notice: their dress consists of a short gown, with full, fashionable sleeves, which do not reach to the elbow; a yellow, black and scarlet linsey-woolsey petticoat; blue stockings and sandals; their hair is neatly braided under a low-crowned cap, and as smooth as possible, with not a hair out of its place: in the field, while milking, they wear straw hats. The head dairy-maid might have gone to any assembly, she was so pretty, neat and clean; yet she worked more than her appearance bespoke. Returning back to the left is the milk-cellar, down a few steps, neatly laid with brick and kept perfectly clean, and at the foot of the stairs stand the salt barrels; that used for the butter is from Lunenburg, in Hanover; that for the cheese, from Liverpool. The butter-room is on the left side of the stairs, and is railed round; there were 84 tubs of butter in it, each weighing 200 lbs., about half an inch of salt on the top, and the heads laid loosely on; the whole covered with clean, white sheets. There were 500 milk-tubs, made of oak, 20 inches in diameter and 6 deep, hooped with willows; they are washed after being used, by six servants, with warm and cold water, ashes and coarse cloths, scrubbers and brushes, and then put out to dry; and if in summer they get the least sour, they are boiled, and again undergo the same process of scouring. This morning there were 269 tubs on the floor, the produce of their milkings.

A few steps on the right hand of the milk-room, is the cheese-room, in which were deposited 800 cheeses of 22 lbs. each, all made of skimmed milk, and of very inferior quality. On the left of the entrance door, stands the butter-churn, holding about 140 gallons, turned by a mill with a horse, from the outside: all the refuse runs through a wooden channel into a trough in the pig-shed, where were 60 hogs fatting. Next, was the dairy-barn, 60 feet long, 28 broad, and 30 feet high, in which were English sheep, deer, and a growing stock of young hogs.

The mansion-house is not modern, but very handsome and commodious, 104 feet long, 44 feet deep, and 40 feet high, with excellent vaulted cellars below; spacious gardens, hot-houses, melon-beds, &c. The poultry-yard is well stocked, 105 geese, as many turkeys, and other poultry in proportion; the fowl-houses commodious and well planned. In a small room adjoining were the nests, a foot in diameter and a foot above the ground, the last egg being always left in the nest: this department was in charge of an old woman and boy, and was kept remarkably clean. There was an egg-table, with three tiers of holes for different eggs and their dates; and the housekeeper had that day packed a cask with 14 dozen in fine *wood ashes*, for winter use: these consisted of peacock, turkey, goose, duck, and hen eggs.

The following is the process of the dairy work. In summer, one servant rises at 2 o'clock in the morning to make fires; all the others, half an hour after: they skim the milk and run the cream through a sieve into the butter-churn; they have then half an hour to sort themselves, and then proceed to the field to milk the cows, every female having 20 cows to milk; the milk is then put into the tubs and set away. Then comes the butter-

making; and when it is churned "or come," it is carried into the butter-cellar, and put into a trough of wood with holes in the bottom, where it is wrought a considerable time to work out the whey; after which it is salted, and lies several hours: it is then sprinkled again with salt, wrought with the hands, and after lying 24 hours, it is put into the casks, without water being allowed to touch it during the whole process. Butter-making is finished about 8 o'clock, when the servants go to breakfast; after which they wash and clean all up, and go *to assist in the garden* till noon, when they dine, and rest until 2 o'clock; when they assume the same operations as in the morning. A book is kept in which the name and number of every cow is registered, with the quantity of milk she yields, which is marked at different periods during the summer; the calves of the best being reserved for the increase of stock, which at present consists of 240 in milk, besides those not giving milk; 41 young heifers in sheds, one and two years old; and two *English bulls.—Quar. Jour. Ag.*

For the Farmers' Cabinet.

Distemper amongst Hogs.

Mr. Editor,—I am weary of hog doctoring. For the last six or eight months there has been such a mortality amongst the members of my piggery, that has baffled all my skill and taxed my patience to bursting. Yesterday the last of forty died, and I feel now that I am relieved at least from my fears, and know the worst of it; but I am left without the means of guessing what has been the cause of such wholesale destruction: neither age or sex has been spared, and the hog of a hundred pounds has shared the fate of the pig of ten pounds, all having fallen alike in the common lot. At first, I busied myself in preparing nostrums, and drenched, and physicked, and bled, according to the prescribed rules, but all that I ever gained was, my labour for my pains, unless, indeed, it was the satisfaction of believing that I sometimes shortened the sufferings of the poor animals and saved their food—two things, which, had I known the result, I could have secured long ago, and with a saving of much labour and expense, and trouble of mind.

How is it, that no one has ever been able to doctor a hog with even a distant prospect of well-grounded success while reasoning from analogy? He seems to be an animal as incurable and stubborn in sickness, as he is self-willed and headstrong in health—a fit receptacle for the possession of some evil spirit. Until the present time, I have found no difficulty in rearing hogs, for my system is, to allow them to go much abroad; and when my neighbours have suffered loss, I have attributed it to their confining them so closely to the house: but on the same land, and in the same quarters, I have now experienced a sickness which, although it might not be properly termed *epidemic*, has certainly been *endemic* to a ruinous extent. I fear to renew my stock, and am at a loss to know how to proceed; but I have determined to erect a new piggery on the other side of my premises, believing it probable that the seeds of disease might still linger in the sties and troughs out of which they have fed during their sickness. I wish that some of your numerous readers could give me a clue to the cause of the sweeping malady that has thus afflicted my stock of hogs, and suggest some mode of guarding against its occurrence in future.

I have been examining all the accounts that have been published in our various periodicals, and other works that have fallen into my hands, and have often been disgusted with the ridiculous modes that have been recorded as having proved effectual in the cure of the diseases of swine; and begin to think that the very short account that appears in John Lawrence's Treatise on Cattle, is about all that can be said upon the subject. He says: "Did my skill in the diseases of hogs hold proportion with the losses I have suffered therefrom, I should, I will venture to say, be the most notable pig-doctor in Britain; unfortunate, however, in both ways, I know very little of the matter; for of all patients, these are the very worst, and you may as well try to doctor or drench a statue, as a pig! The old writers and their followers give a long list of the diseases of hogs, with prescriptions for the cure; but as far as I am able to discover, they know no more of the matter than myself." Your subscriber,

J. D.

To the Editor of the Farmers' Cabinet.

Annealing of Iron.

Sir,—Many persons know, and all may become acquainted with the fact by experiment, that when wire is heated to redness, and immediately plunged into cold water, it becomes so perfectly *annealed*, as to be twined around the finger with the greatest ease, although it might be large in size. Now I would ask, why is it that the same process which hardens *steel* (the sudden plunging in cold water while hot) softens *iron?* Will your scientific readers give me the information, and oblige

A Farmer-Mechanic.

For the Farmers' Cabinet.

The Tumid Jaw of Cattle.

At page 297 of the last Cabinet, P. M. has the following inquiry: "Do you or any of your correspondents know the cause or remedy for the swelling or lump on the jaw, often found on cattle."

I am always pleased with such inquiries as lead to objects of practical utility, and it affords me pleasure, when I can, to answer them. The following remarks may not be altogether out of place.

The *Tumid Jaw* in cattle, is essentially the same disease which surgeons call *osteo-sarcoma or bony cancer*, in the human subject. It is a disease of the bony system, and is common to man and the lower animals. Although the jaw bone, and especially the inferior one, is the most frequent seat of this terrible malady, yet it may invade any part of the bony fabric.

No satisfactory *cause* has yet been assigned for *osteo-sarcoma*. Sometimes it may follow contusions or other injuries of the bones; or when seated on the jaw, it may appear to proceed from the irritation caused by a decayed tooth; but there is reason to suppose that in those cases there must have been *a constitutional predisposition to the disease*. This supposition is rendered more probable, since it has sometimes attacked successive members of the same family; at other times, it has appeared almost simultaneously in several distant parts of the body, and when the affected member has been removed, the disease has been reproduced elsewhere.

The seat and commencement of this malignant disease, is obviously in the *spongy cellular substance* formed in the interior of most bones. As the disease is developed, the bone swells and its healthy structure becomes entirely changed. The following graphic description of the appearances of the tumour, is drawn by Dr. Gibson, (Surgery, vol. i. p. 408.) "The bone will be formed smooth on the surface, and either uniform and regular, or else disposed in lobulated masses of different forms and sizes. Sometimes these are extremely regular, of a rounded form, and resemble very much a cluster of grapes. At other times, several large masses are joined together, and present the appearance of an artichoke or a protuberant potato. When the bony texture of these tumours is cut, forcibly separated, or crushed, a number of irregular cells are brought into view, containing either a thick, cheesy, lardaceous, medullary matter, or else a gelatinous, semitransparent fluid, which oozes out of its own accord, or can be removed by mechanical means, or by maceration,—leaving the sides of the cavities lined by a very fine and delicate membrane. The morbid tissue of bone will then be found to consist of innumerable spicula disposed in endless variety of ramifications, and shooting out into fantastic forms, resembling some species of coral, or assuming the shape of some vegetable productions." The same writer continues: "I have in my possession a very fine specimen of ostea sarcoma of several pounds weight, taken from the upper jaw of an ox. In this specimen, the cells which I have described, and the arrangement of the bony spicula, are uncommonly well displayed, owing to the magnitude of the tumour, and the original texture of the bone upon which it is reared."

In the more advanced stage of *tumid jaw*, more or less suppuration takes place; the tumour bursts in one or in many places, and pours forth an ichorous and corrosive discharge, which soon excoriates and contaminates the adjacent soft parts. From this time the disease puts on more and more the appearance of malignant cancer, until the poor animal falls a lingering prey to suffering and exhaustion, or is kindly released from further torment by the humane interference of its owner.

It may readily be perceived, that a disease such as I have described, will prove intractable and difficult to cure. In its incipient stage of *tumid jaw*, while the tumour is small, it ought to be rigorously attacked by *often-repeated blistering*—or by opening a constant drain from the immediate neighbourhood by means of *a rowel*, or the application of *strong caustic*. If these means fail to avert its progress, an operation for its entire removal should not be too long delayed. With this view, the whole of the diseased mass must be laid bare, and by the bold and dexterous use of small saws, gouges and chisels, *every vestige of unhealthy bone must be cut away*.

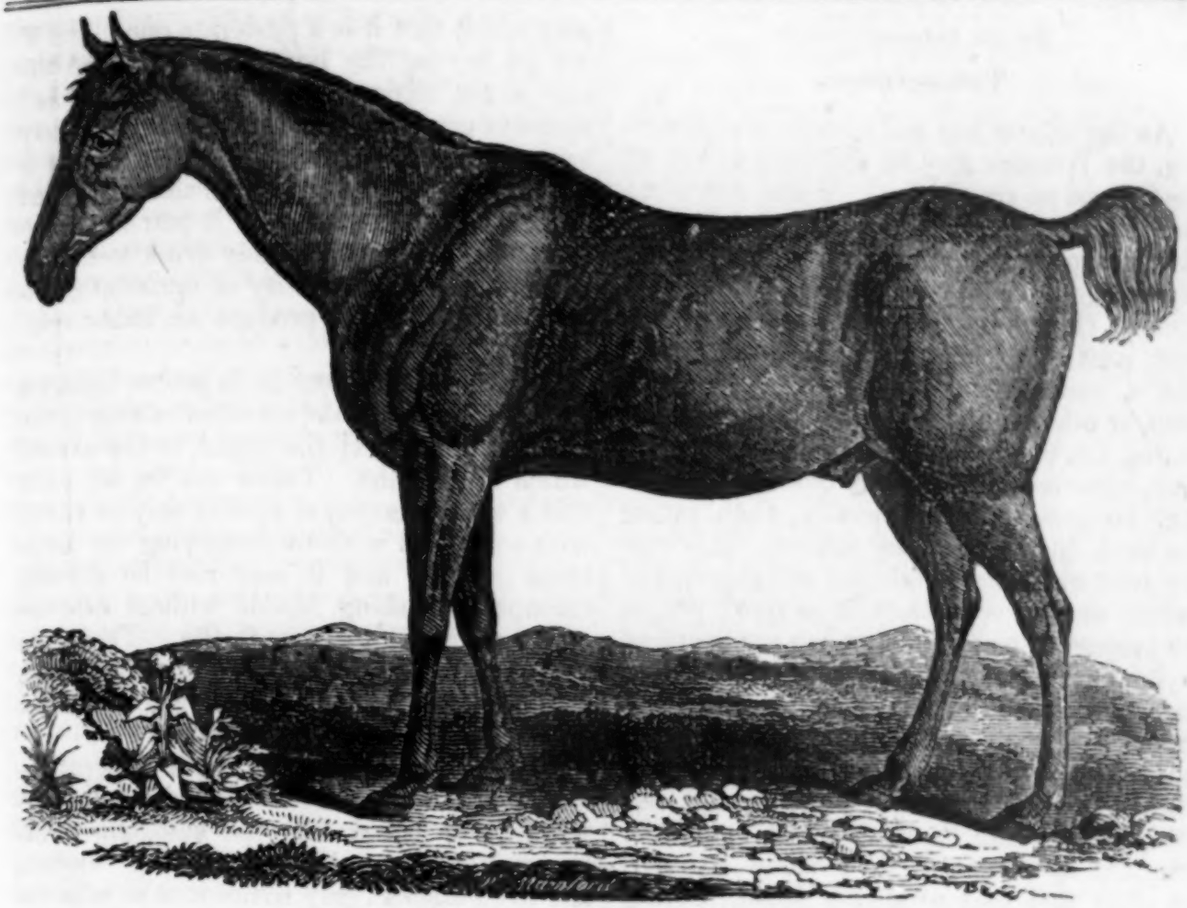
As we are by no means certain that success will attend even this dernier resort, I would by no means recommend it in ordinary cases. Where there is no extraordinary value attached to the animal, perhaps it would be more prudent to *put it off*, before the disease shall have progressed so far as to interfere with the process of feeding.

Neither is it likely that any lasting advantage would accrue from the operation, after the tumour has become a *corroding cancerous sore*.

Medicus.

4th mo. 21st, 1841.

The seeds of pumpkins should not be sown till late, to keep back the blossoming until the rains, as drought is highly injurious to them.



THE OLD IRISH HUNTER.

From Professor Low's Illustrations of the Domestic Breeds of Animals.

THIS admirable portrait exhibits the exact form of one of the old family of the Hunter, now nearly extinct. He is the property of D. L. Scully, Esq., of Limerick, and is amongst the last living descendants of the pure line introduced by the family of O'Brien many years ago. The value of this particular breed of horses can scarcely be estimated: with a strength and endurance truly wonderful, they unite a surefootedness and speed that are the theme and admiration of all who have ever been so fortunate as to possess one of them. They are second only to the human race in intellect, and their docility is proverbial. The peculiar form of the individual here represented, fits him for a travelling companion of no mean order; his beautifully-formed head shows lightness of temper and a half-reasoning faculty, while the neck and buttock indicate the power of climbing a precipice or topping a wall with the fleetness and agility of the deer. A writer observes: "I was once the owner of one of these wonderful animals; no day was too long, no road too rough, no fence too high, and no service too arduous for him to perform. On my removal from the country, he fell into the hands of a hard-hearted wretch, who boasted that he had never seen the horse he could not tire, but he failed in his experiment upon him — the rider was found afterwards, a distance from home, with his neck broke, his faithful steed, whose heart he had often tried to break, standing by his side! From him, he passed into the hands of a farmer, an habitual drunkard, who rode him three days in the week to hunting, and on the Saturday a distance of ten miles to market, from whence he never, scarcely, returned but in a beastly state of intoxication; his neighbours *calculating* the labour of bringing him home from market quite equal to a severe day's hunt."

In a highly interesting work just published by Dr. Gibson, of Philadelphia, entitled "Rambles in Europe," mention is made of some Irish horses belonging to Sir P. Crampton, of Dublin: they are pourtrayed from the life by the hand of a master. He says:

"After awhile, Sir Philip rose and said, 'Come, I never knew an American who was not fond of horses; go out and look at mine.' Accordingly, his man John was summoned, who, flinging open the stable doors, exhibited, one by one, some of the finest cobs, colts, and bay geldings, for saddle and harness, I ever beheld, always reserving the best for the last. They were all so alike in quality, as to render it difficult for even an experienced judge to point out their peculiarities: I, however, said, if allowed to choose, I should select that chesnut-sorrel mare — pointing out a splendid creature with a neck like a rainbow; sharp, peaked, squirrel-like ears; *small, delicate head and muzzle, and dished face;* coming as near perfection as any thing I could well imagine. 'Ah,' said he, 'you have pitched upon the best nag in the stable, although she is 20 years of age; for often she has carried my weight over the highest walls and hedges, where many a larger animal would have broken my neck and its own too.'

"The Irish horses have long been considered the finest in the kingdom, and I saw none to compare with them in Europe: they bear a resemblance to the Vermont horse in style, action, and shape; but it is hardly possible now to meet with any of the *old stock of Hunters;* even in Yorkshire I saw but a single specimen, 30 years old, but which felt under me like a colt, after a ride of 20 miles: but they command there as many pounds sterling as American horses—except first-rate trotters—do dollars in this country."

For the Farmers' Cabinet.

Temperance.

As the time of hay and harvest is approaching, the farmers may be expected to put all their force in requisition. When extraordinary labours are to be encountered, it is natural to suppose that extraordinary supplies of nourishment should be furnished to sustain them. Hence the labourer, in time of harvest, usually expects an increase of wages, and a more liberal allowance of provision, than at other times. To this, within proper limits, there is no reasonable objection. It may, however, be rationally questioned, whether farmers do not, generally, work rather too hard, during that busy season. It is true we must make hay while the sun shines, and gather our harvest when it is ripe; yet, as we profess to be Christians, we are required to let our moderation appear in all things, and therefore at all times of the year. Industry and care are not inconsistent with moderation; but excessive exertion, even when collecting the fruits of the ground, certainly is. As one error, either in opinion or practice, is very apt to produce another, we often find that excessive labour, during the sultry season of harvest, naturally leads to excess in the use of drink. When the strength is nearly exhausted by inordinate exertion, a portion of stimulating liquor produces a transient revival. Hence the opinion may be readily formed, that such stimulants actually increase the labourer's strength. Time indeed was, when the opinion generally prevailed, that the toils of harvest, in this sultry climate, rendered the use of ardent spirits almost, if not altogether, indispensable. Experience has now fully proved the error of this opinion. We now know that the hay and grain can be collected, not only without the use of ardent spirits, but without the aid of any liquor of intoxicating quality. Still the inquiry may be made, and it certainly is an important one, whether the business of harvest can be as well done without the use of any intoxicating liquor, as with it.

It is to be presumed that every man who apprehends that intoxicating liquor is necessary, or even useful, in time of harvest, will admit that it is only the *moderate* use for which he can plead. The supposition that business of any kind can be carried on to more advantage by men who are using strong drink to excess, than by those who are strictly temperate, is too glaringly absurd to be entertained for a moment. We may then ask, what use is moderate? The answer will probably be—such use as will increase the activity and strength, without affecting the understanding, or eventually impairing the physical force. If such use can be made, we may admit that it is a moderate one. But if we go beyond the limit here indicated, the use is not moderate. If the quantity used operates upon the mind, even though it may appear in the form of hilarity, that hilarity is at best of a very questionable character; and those who drink enough to impair their physical powers, unquestionably drink to excess.

Now does any quantity of intoxicating liquor, small or great, produce an increase of strength?

To place the subject in its proper light, we may recollect that the question relates to the intoxicating part of the liquid, to the alcohol which it contains. There can be no doubt that a small quantity of alcohol may be mixed with solid food without destroying its nutritious quality; and it may also be diffused through nourishing liquids without destroying their power to support life. There are unquestionably several kinds of drink which contain some alcohol, and yet are nutritious. But is the alcohol itself nutritious?

It is well known that in cases of great exhaustion, the stimulus of alcohol, applied externally, or taken into the stomach, sometimes produces a salutary action. Opium, and even arsenic, may sometimes be administered with advantage *as medicine;* and so may alcohol. But physiologists agree that alcohol is not assimilated with the food by the digestive organs. It is absorbed and mingled with the circulating fluids, but not converted into the constituents of the human frame. It is alcohol still. Dr. Kirk informs us that he dissected a man who died in a state of intoxication. The operation was performed a few hours after death. In the lateral ventricles of the brain was found a limpid fluid, in which the scent of whiskey was distinctly perceptible. When, to a portion of it in a spoon, a candle was applied, it took fire, and the lambent blue flame, characteristic of the poison, played for some seconds on the surface of the spoon. Now, whatever mingles with the circulation, without being elaborated by the stomach, is productive of disease. We might therefore infer à priori that alcohol, taken into the stomach, must impair the health. When the quantity is small, it may be thrown off without sensible injury; and so may the metallic poisons. But that is no reason why they should be intentionally swallowed.

That the apparent strength imparted to the system by strong drink is very transient, may be clearly inferred from the fact above stated, that the alcohol is not assimilated with the food. The sudden glow of activity and warmth which alcohol excites, is found by experience to pass quickly away, and to leave the frame more debilitated than before it was taken. Persons exposed to intense cold, are found to perish sooner if they drink ardent spirits than

if they do not. We often hear of drunkards perishing in cold weather with their bottle by their side: but where no visible intoxication occurs, the debilitating effect of this stimulus is frequently exhibited. In the winter of 1796, during a severely cold night, a vessel with seven persons on board was wrecked near the coast of Massachusetts. Five of the company concluded to try swimming to shore. Four of the five prepared themselves by drinking freely of spirits, the other drank none. The man who drank none, and three of the others, reached the shore; and endeavoured to make their way, through a deep snow, to a distant light. The total abstinence man effected his object, and his life was saved, but the rest perished by the way.

If ardent spirits diminish the capacity for enduring cold, we may perhaps infer that they increase the power of sustaining heat; and are therefore salutary to the labourer in the harvest field. This inference, however, is not sound. Ardent spirits, when taken into the stomach, produce a transient excitement, which leaves the system with less than its former excitability. The man therefore perishes with cold, not because the alcohol had carried off a part of his natural warmth, though it certainly has that effect, but because it had diminished the power of producing a necessary supply. It had impaired his vital energies, and left him more obnoxious to the benumbing influence of cold. If alcohol increases the capacity to endure the heat and toil of harvest, it must do so while the excitement continues, or after it has passed off. While the excitement continues, the warmth is increased; and when it has passed off, the body is left weaker than before. If the stimulus is so frequently repeated as to keep up the excitement, it is like going nearer the fire to escape from the inconvenience of heat; besides, by such course the strength is eventually impaired.

From these premises we are fully authorized to conclude, that intoxicating liquor of any kind is not advantageous in performing the labours of harvest; and that the benefit, so far as there is any benefit, from the use of the weaker liquors, arises, not from the alcohol they contain, but from the other ingredients. If, then, the harvest man is properly supplied with wholesome drink, into which no alcohol enters, he has all the advantages which the alcoholic liquors afford, and escapes the evils which those liquids are in danger of introducing.

This, we may observe, is not an idle theory, but is fully supported by experience. It has been found that the labours of harvest are actually performed in a better manner without the use of alcoholic drink, than with it. The labourers, after performing a given quantity of work, sustained by unintoxicating beverage, find themselves less exhausted than when supplied with alcoholic stimulants.

If now we could accord to intoxicating liquor, used in moderation, the negative credit of doing no injury, it might still be worthy of inquiry whether the practice of moderate drinking, even if we could be sure it would never run into beastly excess, can be justified. As it appears, from experience and the nature of the case, that such liquors do not promote the labourer's health or strength in time of harvest, it is obvious that moderate drinking is as justifiable at other times of the year as in time of harvest. Let us then advert to the expense of moderate drinking. Suppose two men, A and B, begin the world without capital at the age of twenty; that the profits of their business and their ordinary expenses are the same, except that A drinks moderately, spending each day twelve and a half cents for liquor, and B goes upon the plan of total abstinence. Consequently B, at the end of the first year, has $45.62½ more than A. B has of course an annuity of $45.62½, which A has not. Now there are so many ways in which money may be improved, that we may fairly reckon this annuity as accumulating at 6 per cent. compound interest. These men going on in this way, A, keeping to his moderate plan of spending no more than 12½ cents a day, until they attain the age of seventy, — it is easily shown that B's annuity amounts to the decent sum of $13,247. If, then, A has just made out to keep clear of debt, B has an estate, the income of which may probably support them both. If we suppose the sum expended for liquor to be only 6¼ cents a day, the sum saved by total abstinence appears, from this calculation, to be $6623. To a man of seventy, the possession of this sum would be more comfortable than the recollection that he had swallowed six and a quarter cents' worth of liquor every day for fifty years. We thus perceive, that of two men with equal industry, and equal opportunities, one may be placed in easy circumstances, and the other be very poor, for no other reason than that one drinks moderately, and the other is entirely abstemious.

There are many who make little or no use of the ardent liquors, such as rum, gin, brandy, &c., who suppose that the malt liquors may be used to advantage, and that they contain a considerable portion of nourishment. I am ready to admit that they contain some nutritious matter: but the economy of deriving nourishment from such liquors is forcibly illustrated by the facts exhibited in a lecture delivered at Birmingham, England, about two years ago. The lecturer showed that a chymical analysis gave from a gallon of ale,

which there cost two shillings sterling, six ounces of pure alcohol, and eight or nine ounces of extractive matter, not quite equal in its nutritious quality to the same weight of common bread. Now that weight of bread then cost about one penny sterling, so that the man who derived his nourishment from ale, paid about twenty-four times as much for it as if he had bought it in the shape of bread; and also swallowed with his pennyworth of bread, six ounces of pure alcohol, or twelve ounces of proof spirit.

These observations apply chiefly to the *moderate* use of alcoholic liquors; and show that a comparison between *such use* and total abstinence, gives a decided preference to the latter. But this comparison, thus limited, is hardly a fair one. It is exceedingly difficult, and sometimes impossible, to use ardent spirits as a drink, without running into absolute excess. Even where obvious intoxication is not produced, frequent indulgence in the use of such liquors excites an appetite, which strengthens in proportion as it is fed, and is sometimes scarcely perceived until it has grown too powerful to be resisted. There doubtless are many in the situation of Dr. Johnson, who have not the candour to acknowledge it. When asked by Hannah More to take a little wine, he answered, that he could not take a *little*, and that *abstinence* was easier to him than temperance. It appears he could be strictly *abstemious*, but could not *drink moderately*. It is not to be supposed that any young person sets out with a deliberate intention of becoming a drunkard. There is something so disgusting in this beastly vice, that any one would instinctively recoil at the prospect of becoming a sot. How, then, do so many fall into this pit of pollutions? The question is a momentous one, and worthy of a careful examination. But before I attempt to answer it, let us suppose that all the members of the community belonged to one of the two following classes: the low, guzzling, absolute drunkards, without shame and without character, in whom the love of strong drink was the ruling passion, by which every other was absorbed,—and the strictly abstemious, who made no use of intoxicating liquor themselves, and would neither manufacture, give or sell it to others. Whatever proportion the members of these classes might bear to each other, it appears highly improbable that many, if any, would be added to the intemperate one. In such a community, the race of drunkards must soon become extinct, either by death or reformation. As *moderate drinking* of alcoholic liquor would be totally out of fashion, there would be very little danger that any of the temperate class would contract a fondness for such liquor; and as no man of respectability would keep the article for sale, the drunkards would probably become temperate from sheer necessity.

This supposition seems to me to answer the question; and to suggest this solution of the problem. It is the countenance given, by men of character and respectability, to the manufacture, sale, and moderate use of intoxicating liquor, that produces all the drunkenness which exists among us.

The farmer who furnishes his labourers, during the time of hay and harvest, with intoxicating liquor, not only contributes towards keeping up a race of drunkards, but establishes a principle, as far as his example can establish it, which can scarcely fail to supply the next generation with a succession of sots. If the toils and heat of harvest are admitted to require the use of such liquor, then it must follow that other employments, equally exposing and laborious, also require it. As harvest does not last all the year, the farmer who drinks alcoholic liquor only in harvest, and on other extraordinary occasions, may perhaps escape becoming a sot; but the man whose regular business throughout the year calls for similar indulgence, must, if he submits to it, almost inevitably become intemperate;—thus we find that forgemen, limeburners, and others of like occupation, if they indulge a notion that their employments require the aid of intoxicating liquor to sustain them, almost invariably become drunkards—men who follow these occupations may be abstemious if they will, but can scarcely ever be *moderate drinkers*.

When a house is on fire, we sometimes behold the men who are collected very differently employed. Some are pumping water from a well, others are carrying it in buckets, others again are playing the engine, while another number are assiduously engaged in rescuing the property from the flames. Yet all these efforts are directed essentially to the same object. So it appears that in the manufacture of drunkards, there are many persons variously employed, who perhaps seldom reflect upon the ultimate effect of their united labours. Some are engaged in cultivating the article from which intoxicating liquors are produced, others manufacture the liquor, others deal in such liquors in the wholesale line, and of course very seldom immediately furnish the absolute sot with his favourite beverage—others keep respectable taverns, where nobody is allowed to get drunk, but where decent people are furnished with all they demand, and where *moderate drinking*, in a civil way, is not discountenanced—others again neither manufacture nor sell intoxicating liquors, but merely purchase and use them in *moderation*, in their families and among the workmen. All these

classes may have a very great aversion to drunkenness, and think it extremely improper to furnish strong drink to those who are too weak to avoid intemperance — yet without these respectable encouragers of drunkenness, in its incipient stages, the low unprincipled master of the grog shop, who sells his poison to any body and every body, drunk or sober, who is able and willing to pay for it, would be about as inefficient in the production of beastly ebriety, as the man at an engine would be in extinguishing the fire, if no one would supply his engine with water. The low tavern is the sink into which all the drainings from more respectable nurseries of intemperance eventually collect. This nuisance will hardly be removed by attempting to clear out the sink, but by stopping the current which flows into it. Stop this current, and the sink itself will soon become dry.

We are told that the Spartans used, at times, to compel their slaves to get drunk, in order that their children might acquire a proper aversion to the practice. And beastly intemperance, in every age, is sufficiently disgusting, without the Spartan association of slavery, to excite the abhorrence of uncorrupted youth. We are, therefore, again thrown back upon the temperate and respectable members of the community, who drink intoxicating liquors in a moderate way, and by their example encourage others to drink them, as the original supporters of intemperance. In this work of destruction there are doubtless many engaged, who have no suspicion that they are contributing to the evil at all. The farmer who carries his produce to market, and puts up his horses at a tavern, may possibly fall into a practice, which, if it does not make a drunkard of him, may endanger the sobriety of others who imitate his example. I allude to the practice of taking a glass of liquor, by way of remuneration to the host, for the use of his shed or stable. Now if room, and nothing but room, for himself or his horses is needed, why not pay for that room? This, I know, has been sometimes done. If in travelling to or from market, in the winter season, it becomes necessary to warm at a public-house on the road, it would be more rational to pay what might be reasonably estimated as the value received, than to call for a glass, by which an appetite for strong drink is excited, and encouragement given to those who have commenced their downward course towards the drunkard's grave.

It is very common for those who are accustomed to moderate drinking to say that they can do with or without alcoholic liquor. Indeed a man who acknowledges he cannot do without such drink, must be unusually candid, or far gone in the way to the drunkard's last home. And a conscientious man would hesitate before he would furnish liquor to a man who cannot do without it. If then the temperate drinkers can do with or without strong drink, why not do without, rather than incur the danger, or encourage others to incur the danger, of becoming intemperate?

When we soberly reflect upon the great liability to become grossly intemperate to which the moderate drinkers are exposed, and the great number who, by little and little, become completely enslaved, we must be convinced that nothing less than some important advantage can justify our incurring so tremendous a risk. It is indeed difficult to conceive what possible benefit, real or imaginary, derivable from the use of alcoholic liquor, can justify the exposure of ourselves or our families to the danger of falling into the sink of intemperance. If any father of a family, who possesses the common feelings of humanity, could certainly foresee that, by the occasional use of intoxicating liquor in his family or among his workmen, one of his sons would become a slave to intemperance, mingle in the brawls of the grog-shop, and eventually, in a drunken frolic, murder one of his degraded companions, and end his days on the gallows, certainly such a foresight must excite a positive determination to exclude from his premises any thing which could be expected to lead to such a result. Were the obvious advantages of the moderate use of intoxicating liquor ten times as great as any body imagines they are, still the certainty of such a fearful result would be reason enough for excluding it from the family and farm. Or could it be foreseen that, by such use, one of the sons would become a drunkard, but not a murderer, lose all his property and respectability of character, and become the inmate of an almshouse or insane hospital; or that one of his daughters would be introduced into society which would connect her with a drunken husband, and strew her path through life with the briars and brambles which the wife of a drunkard is sure to encounter, no other argument would be needed to excite a just abhorrence of the insidious poison. Now we do not know that any of these consequences *must* follow from the admission of these liquors into our families; yet we know they *may*, for they have followed in numerous instances. The bare possibility of such consequences is reason enough, with a prudent parent, for keeping the cause at a distance.—And the pious Christian, who regards every man as his brother, and all the youth in the country as his children, must be anxious to exclude from his own family, and

from all others within the sphere of his influence, an article which *can be done without;* and which, if tolerated, must, in all human probability, involve some of them in all the evils above described.

In the year 1838, the legislature of Massachusetts directed certain returns to be made, including the statistics of pauperism. The returns made appear to have been incomplete; but those from a number of the larger towns exhibit an aggregate of 7245 paupers, of whom 5328 are supposed to have been reduced to that condition by intemperance of themselves or others. The number returned in the state for the year 1837 was 14099, of whom 7590 are represented as the victims of intemperance.

In 1839 there were stated to be 2400 inmates of the almshouse in New York, 1600 of whom were reduced to poverty by intemperance. From a careful investigation of almshouses in various States, it is found that of all the persons who by idleness and improvidence have been reduced to poverty, from two-thirds to seven-eighths were intemperate, and that more than nineteen-twentieths drank ardent spirits. Of 3000 admitted into the almshouse in Salem, Massachusetts, the superintendent was of opinion that 2900 were brought there by intemperance. Of 4969 found in various almshouses, 4690 are stated to have been reduced to pauperism by intemperance. The expense of supporting the paupers in the Philadelphia almshouse, in 1833, was $130,000, of which about nine-tenths were caused by intemperance. But the reports of almshouses, and other receptacles of the destitute, furnish a very imperfect account of the sufferings and poverty occasioned by intemperance. Many women, whose husbands are intemperate, endure all the miseries that poverty and rags can entail upon them, and yet never find a refuge for themselves or their destitute children, in any public receptacle for the poor. There is no doubt that many women in this situation, are impelled by a noble independence of mind to resort to every honest expedient which ingenuity can devise, to provide for their own wants, rather than resort to the charities of the public. And the greatest sufferers of all are probably the poor degraded victims of intemperance themselves. Among the nameless miseries which the drunkard entails upon all who are brought under his power, there is none equal to what he endures himself: and he generally suffers without pity, except perhaps from the wife whose pillow he has planted with thorns.

But pauperism is only one of the evils brought by intemperance on the human race —insanity is frequently superinduced by the use of intoxicating drink. Of 244 patients admitted into the lunatic asylum at Worcester, Mass., 110 are said to have become insane by intemperance. Of this number about one half were restored; but of the remainder the intellect appears to have been irrecoverably lost. In an article on insanity, by Dr. Earle, published in the American Journal of the Medical Sciences, it is stated, that in 496 cases of insanity, from physical causes, 146 were traced to intemperance. In another account I find it stated, that of 781 maniacs, in different hospitals, 392 were rendered insane by strong drink. A physician of great experience gave it as his opinion, that more than half the cases of insanity which had come under his notice, were caused by excessive drinking. The fact already cited of alcohol being found in one of the ventricles of the brain, leaves little room to wonder that insanity should arise from intoxication. It is rather matter of surprise that the temporary insanity which intemperate drinking excites, does not more frequently become permanent.

Another evil arising from intemperance, and indeed, from moderate drinking of alcoholic liquors, is its aptitude to render diseases of any kind unmanageable—this is more particularly the case with malignant ones. It is a fact attested by the experience of every practical physician, that when disease fixes upon a frame which has been indurated by strong drink, medicines do not act with the efficiency they do upon others. Hence persons addicted to the use of strong drink, are frequently brought to the grave, by diseases which would produce but little inconvenience to one of abstemious habits.

In the year 1832, the cholera prevailed in several parts of our country. In the city of Albany, with a population of about 25,000, there were 336 over sixteen years of age, who died of that disease. But it was remarked that out of five thousand members of temperance societies, only two died. So that this disease carried off but one in 2,500 of the total abstinence men, or at least of those who were members of temperance societies, and about one in sixty of the rest.

In the city of New York, out of six hundred taken to the Park Hospital, not more than about one in five professed to be even temperate drinkers. The number who died of that disease, and who for the last two years, had not used ardent spirits, was exceedingly small. A gentleman of that city, after paying particular attention to the subject, remarked that facts abundantly authorised the conclusion, that if there had been no spirits used, there would not have been cholera enough to interrupt their business for a single day. The transition from the grog-shop to the hospital, and thence to the pot-

ter's field, was found to be so rapid, that some of the retailers became alarmed, and discontinued their sales.

Of all the forms in which intemperance contributes to the misery of man, its contributions to the criminal list are the most copious. When men drink alcoholic liquor, even in a moderate way, it is very apt, indeed almost certain, to raise their spirits, and make them more talkative. It was remarked by Dr. Johnson, in reply to one who insisted that drinking wine improved conversation; before dinner men meet with great inequality of understanding, and those who are conscious of their inferiority, have the modesty not to talk. When they have drunk wine, every man feels himself happy, he loses that modesty, and grows impudent and vociferous: but he is not improved; he is only not sensible of his defects. Dr. Johnson was not then speaking of gross intemperance, but of *social drinking*. Now as this social drinking renders men more impudent and vociferous, they are evidently more likely to quarrel, than when they are not thus stimulated. As the steam rises higher, the propensity to quarrel increases; for the passions become less subject to the understanding. Passions frequently excited, grow imperious and domineering. Hence the man who often drinks to the verge of intoxication, is rendered more excitable than the man of total abstinence. When the vinous potations are extended into the region of drunkenness, the pugnacious propensity commonly becomes predominant. We accordingly find many men, who, when entirely clear of drink, are quite inoffensive, but when intoxicated, are insufferably quarrelsome. We may therefore conclude, without searching our criminal records, that intemperance must greatly augment the mass of the more brutal species of crimes, such as murder, assault and battery, &c.

But intemperance often leads to crimes with which it is not so obviously connected —The intemperate man is rendered in great measure unfit for honest employment, and in consequence generally becomes poor; hence he is exposed to temptation, which the morality of the grog-shop is ill-calculated to resist. Becoming an outcast from respectable society, his feelings towards others can hardly be entirely cordial. Larceny and its kindred crimes, then readily follow. The children of intemperate parents, if not rescued by the hand of charity, are liable to be impelled, by want of the necessaries of life, to resort to pilfering. This reasoning is amply supported by facts. By the report of the Moral Instructor, of the Eastern Penitentiary of Pennsylvania, read before the House of Representatives in 1839, it appears that of 178 admitted during the preceding year, "125 drank, and got drunk; 28 drank, but did not get drunk;" leaving only 25, or not quite one in seven who did not drink. The same report gives the whole number admitted there previous to the year 1839, as 1036, of whom 747 drank to intoxication; 67 drank, but did not get drunk, 212 were temperate, and 10 uncertain: this shows that about four-fifths of the inmates of that prison were at least occasional drinkers; and about three-fourths decidedly intemperate. Of 57 convicts committed to the Connecticut prison in 1837, no fewer than 42 were intemperate. Of 64 criminals confined in the Hartford jail in 1838 and 1839, there were 46 known to be intemperate. Of 39 prisoners in the jail of Litchfield county, Connecticut, 35 were intemperate. In the jail of Ogdensburg, N. York, seven-eighths of the criminals were addicted to strong drink. Of 647 in the state prison at Auburn, N. Y. 467 were intemperate; and 346 were under the influence of strong drink when the crimes, for which they were imprisoned, were committed. Of 690 children, imprisoned for crimes in the city of New York, more than 400 were from intemperate families. Of 653, who were, in one year, committed to the house of correction at Boston, 453 were drunkards; and the overseer gave it as his opinion that there were not ten among them who were not in the habit of using strong drink to excess. In 1833, there were 114 persons committed to the Albany jail, in one month, for various offences; of whom, 82 are reported as intemperate; 14 free-drinkers of ardent spirits, and 18 whose characters were not known, as they came from a distance. Yet the crimes charged upon several of these 18, were such as are seldom committed by temperate men. Col. W. S. Williams, of South Carolina, declares that of eleven murders tried at the court where he practised, one of the parties was intemperate or intoxicated when the crime was committed; and in most instances both were so. With regard to other offences of personal violence, assaults with intent to commit murder, and common assaults, he says, he has, in the course of his practice, been engaged in many, and witnessed trials innumerable, and cannot recollect a single case, in which some of the parties were not more or less intoxicated. H. Maxwell, of New York, states that of twenty-two cases of murder which it had been his duty to examine, all had been committed in consequence of intemperance. Within a few months there were six individuals, in the interior of Pennsylvania, belonging to one family, murdered on the same day, and a seventh attempted. The murderer, during

the last hour of his life, confessed his guilt. He denied being a drunkard, yet acknowledged that he sometimes got drunk. James Williams, lately executed at the Moyamensing jail for murder, informed the Sheriff that he was not conscious of the murder; yet he acknowledged he was drinking gin just before the event.

Having already extended this article beyond the limits originally designed, I shall omit a number of statistical facts which I had noted as bearing upon the subject. Some of those facts relate to the immense destruction of bread-stuffs in the manufacture of ardent and fermented liquors; and the great addition to the public expenses, in the shape of contributions to charitable institutions, and in the prosecution of criminals, which the consumption of strong drink annually occasions.

A careful examination of this subject leads to the conclusion, that the revenue derived from license to sell intoxicating liquors, is a very small fraction of the expense, entailed on the public by their sale.

As the advantages to be obtained from even the temperate use of alcoholic drink, are exceedingly small, if, indeed, there are any at all; and the evils arising from the excessive use incalculable and overwhelming; and as the intemperate use springs primarily from the moderate, and is supported by those men of character and respectability who use the article in moderation; it is evidently the part of wisdom, perhaps I might say, it is the imperious duty, of the friends of our race, to exert their influence, wherever it can be felt, to expel the evil of drunkenness from our land, in the only way in which it can be effectually done, by discountenancing the temperate use of intoxicating liquor.

If the farmers of the present day, would universally adopt the conclusion, and rigidly adhere to it, to sell none of the produce of their fields to be converted into intoxicating liquor, and to purchase none, when manufactured or imported, their example would unquestionably be felt in every department of society. By this course they would dry up the most prolific source of mendicity and crime; and furnish cause, when they themselves are gathered to their fathers, for those who may occupy their places, to rise up and call them blessed.

An Old Farmer.

If there be any "universal medicine" in nature, it is water, for by its assistance all distempers are alleviated or cured, and the body preserved sound and free from *corruption*—that enemy to life.

Go Forth into the Fields.

Go forth into the fields,
Ye denizens of the pent city's mart;
Go forth, and know the gladness nature yields
To the care-wearied heart.

Leave ye the feverish strife,
The jostling, eager, self-devoted throng;
Ten thousand voices waked anew to life,
Call you with sweetest song.

Hark! from each fresh-clad bough,
Or blissful soaring in the golden air,
Bright birds with joyous music, bid you now
To spring's loved haunts repair.

The silvery gleaming rills,
Lure with soft murmurs from the grassy lea;
Or gaily dancing down the sunny hills,
Call loudly in their glee!

And the young wanton breeze,
With breath all odorous from her blossomy chase,
In voice low whispering, 'mong the embowering trees,
Woos you to her embrace.

Go breathe the air of heaven,
Where violets meekly smile upon your way;
Or on some pine-crown'd summit, tempest driven,
Your wandering footsteps stray.

Seek ye the solemn wood,
Whose giant trunks a verdant roof uprear,
And listen, while the roar of some far flood
Thrills the young leaves with fear!

Stand by the tranquil lake,
Sleeping 'mid willowy banks of emerald dye,
Save when the wild bird's wings its surface break,
Chequering the mirror'd sky—

And if within your breast,
Hallow'd by nature's touch one chord remain;
If aught save worldly honours find you blest,
Or hope of sordid gain—

A strange delight shall thrill,
A quiet joy brood o'er you like a dove;
Earth's placid beauty shall your bosom fill,
Stirring its depths with love.

Oh, in the calm, still hours,
The holy Sabbath hours, when sleeps the air,
And heaven and earth deck'd with her beauteous flowers,
Lie hush'd in breathless prayer—

Pass ye the proud fane by,
The vaulted aisles, by flaunting folly trod,
And 'neath the temple of uplifted sky,
Go forth and worship God.

Proper Season for Cutting Grain.

It is a good practice to cut every kind of grain rather before it is fully ripe in the grain or the straws. In a *fine season*, some farmers cut their crops when they find the neck of the straw immediately under the ear, free of juice when twisted round between the finger and thumb, and do not wait until the lower part of the stems are dry and yellow, because they find in such a season the straw to die from the ear downwards. In a *bad season*, on the other hand, the lower part of the stem first becomes yellow and dry; after which, of course, the crop is not allowed to stand, for in such a season the ear never becomes mature, having less absorptive power, whilst the vitality of the root is early destroyed by the combined effects of bad weather and an ungenial state of the soil.—*Quar. Jour. Ag.*

To the Editor of the Farmers' Cabinet.

Cutting and Seasoning Timber.

Sir,—The time has again arrived, when a fair experiment might be made, with a view to ascertain the proper season at which to cut timber, and to render it in a great measure indestructible, by submitting it to the action of fire, for the purpose of driving off its juices, thus exposing it to the external pressure of the atmosphere, by which the sap-vessels are *broken down* and the fibres of the wood are brought into close contact, so as to be rendered water, air, and worm-proof, according to the theory entertained at page 318, vol. 4, of the Cabinet. It is presumed, that to obtain all the advantages to be derived from such a process, it must be put into operation as soon as the timber is cut and deprived of its bark; for if it be delayed, the *gradual* evaporation of the sap might go on, and the cells become drained of a portion of their contents, when the pressure of the atmosphere, being in proportion to the vacuum created by the internal evaporation, will be reduced in just so much as these juices have already passed away without the aid of *cooking;* and thus these cells might be left in their perfect form, (in other words, they would not be broken up and crushed by boiling and pressure,) so as afterwards to permit the readmission of air and moisture, by which the destruction of the wood would be accelerated, and at length become *powder-post.*

With this view, the writer is prepared to carry out a set of experiments on the different varieties of woods; and would propose that others of your readers would go into the examination of the subject by actual experiment, rendering a true and faithful description of their modes of practice and the results, for publication in the Cabinet, together with specimens of the timber operated upon, to be deposited at the office for examination. The advantages arising from charring the bottoms of posts to be placed in the ground, are to be sought for in this theory, and not from the supposition that it is the thin coating of charcoal that the timber receives during the operation; the sap-vessels are broken up, and the volume of the wood is condensed by the pressure of the atmosphere, and rendered more compact and impervious to *air and moisture* — the great causes of decomposition.

John Deacon.

New Jersey, May 3, 1841.

The desire to live without labour and in luxury, is one of our greatest sins: it fills our courts, the jails, and poor-houses; it demoralizes our youth, and brings the aged with sorrow to the grave.

To the Editor of the Farmers' Cabinet.

Weeks's Vermont Bee-Hive.

Having seen in your last number some notice of the "Vermont Observing Hive," I cheerfully offer my testimony in favour of the simplicity and utility of that valuable hive.

I received one from the inventor in the summer of 1839, but too late to use it that season, and loaned it to a friend last spring, who made the first trial with great success. A fine swarm of bees entered it readily, and in two weeks had filled half the body of the hive with comb, and the drawers with the purest and richest honey I ever saw. These were emptied and replaced, speedily filled again, and exhibited both here and in Baltimore, to the admiration of all beholders.

I am now having a hive constructed for a lady in the vicinity of that city, who has bought an individual right, and will make the merits of the invention more generally known. The ingenious proprietor deserves encouragement here, commensurate with the fame he has already obtained in his own New England.

Your subscriber,

Wm. H. Tilghman.

Easton, Md., April 20, 1841.

To the Editor of the Farmers' Cabinet.

Delaware County Hogs.

Friend,—As the Farmers' Cabinet is designed to be a register of animals of extraordinary size and beauty, I send thee the weight of a hog, fed and slaughtered by George Baker, on the 22d day of February, weighing, after being neatly butchered, 879 lbs. And of one also, raised, fed, and slaughtered by Philip S. Bishop, of Edgmont township, Delaware county, on the 24th day of March, weighing 966½ lbs. after being neatly dressed. These hogs were both of the same litter, and were pigged in September, A. D. 1838. They were of the pure white, Delaware county breed, and made no pretensions whatever to an alliance with the boasted Berkshires of other places. They were also fed against a hog that was slaughtered in March of last year, at the Black-Horse tavern, in Middletown township, Delaware county, which weighed 929½ lbs. after being neatly dressed for market.

Thine, respectfully,

Homer Eachus.

Edgmont, April 2, 1841.

The period of gestation is the same in the horse and ass, namely, eleven months each: in the camel, twelve months; in the elephant, two years; in the lion, five months; in the dog and cat, two months; in the cow, nine months; and in sheep, five months.

The Late Census.

PRODUCT OF BREAD-STUFFS IN THE U. STATES.

	Bushels of Wheat.	Bushels of other grain.	Bushels of Potatoes.	Population.
Maine	848,166	2,630,996	10,392,380	501,796
N. Hamp. ..	442,954	3,084,854	6,234,901	281,481
Vermont ...	642,963	4,051,818	8,206,784	291,848
Massachu. .	158,923	3,604,082	5,385,692	737,786
Rhode Island	3,088	697,408	904,773	108,837
Connecticut	86,980	3,995,175	3,414,227	310,831
New York ..	11,853,907	39,540,501	30,058,000	2,432,835
New Jersey	774,023	9,922,044	2,074,118	373,271
Pennsylv. ..	13,029,756	40,198,521	8,626,925	1,850,000
Delaware ..	215,165	3,086,705	200,712	78,120
Maryland ..	3,511,443	12,772,280	1,058,919	467,567
Virginia ...	10,066,809	50,054,336	2,873,447	1,239,227
S. Carolina .	705,925	16,236,512	2,697,713	594,439
Georgia	1,732,956	18,703,310	1,184,386	
Ohio	16,214,260	48,797,112	5,600,586	1,515,695
Tennessee ..	4,547,372	49,545,443	2,373,034	
Louisiana ..	105	6,622,398	845,935	683,314
Alabama ...	746,106	16,146,577	1,560,700	
Mississippi .	196,476	13,669,940	1,538,628	384,000
Missouri ...	946,077	13,840,190	684,492	327,781
Indiana	4,154,256	34,086,545	1,548,190	683,314
Illinois	2,740,380	28,354,932	1,956,887	457,447
Michigan ..	2,189,263	6,152,273	2,051,339	211,705
Arkansas ..	112,200	4,084,712	290,887	95,612
Iowa Ter. ..	157,747	1,559,230	234,063	
Dist. Colum.	12,147	60,717	12,035	43,712
Bushels	66,089,947	419,776,871	102,459,926	

No returns from North Carolina, Kentucky, Florida, and Wisconsin.

RECAPITULATION.

Bushels of wheat	66,089,947
Other grain	419,776,871
Potatoes	102,459,926
Bushels	588,326,744
Estimate for Kentucky, N. Carolina, &c. ..	70,000,000
Bushels	658,326,744

Putting the population of the United States at 17 millions, there will be over 38 bushels of bread-stuff for every inhabitant! the average consumption in England being about *five* bushels to a person, including young and old, and all kinds of grain.

In viewing the amount of bread-stuffs raised, the farmer can draw his own conclusions by the foregoing, as to the probability of a rise of prices, or conjecture as to a still further decline: unless there is a great demand from abroad, we fear the latter; at present there is nothing to encourage more than a usual exportation. In making this calculation, it must be recollected, that there are about 4 millions of people in the West Indies and South America, who now receive their flour from us. Allowing 10 bushels to each inhabitant, which is double the average in Europe, and we have a surplus of 172,000,000 bushels; from which we conclude, that unless there is an increased demand from abroad, present prices of bread-stuffs will not advance during the present season, whatever change may follow the ingathering of the ensuing crop.

EXPORTS OF FLOUR AND WHEAT FROM 1790 to 1838.

Years.	Bushels of Wheat exported.	Average price of Wheat in England.	Barrels of Flour exported.	Average price of Flour each year at Philadelphia.	Value of Flour exported at average prices in Philadelphia.
		s. d.			
1790	1,124,458	53 2	724,623	$5 56	3,234,733
1791	1,018,339	47 2	619,681	5 22	4,328,436
1792	853,790	41 9	824,464	5 25	6,340,378
1793	1,450,575	47 10	1,074,639	5 90	5,837,469
1794	698,797	50 8	846,010	6 90	7,286,111
1795	141,273	72 11	687,369	10 60	9,064,953
1796	31,226	76 3	725,194	12 50	4,5[illegible]4,100
1797	15,655	52 2	515,633	8 91	4,653,975
1798	15,021	50 4	567,558	8 20	5,016,000
1799	10,056	66 11	519,265	9 66	6,439,092
1800	26,853	110 5	653,052	9 86	11,465,417
1801	239,929	115 11	1,102,444	10 40	7,978,111
1802	280,281	67 9	1,156,248	6 90	8,828,771
1803	686,415	57 1	1,311,853	6 73	6,666,365
1804	127,024	60 5	810,008	8 23	7,541,876
1805	18,041	87 1	777,513	9 70	5,713,[illegible]85
1806	86,784	76 9	782,724	7 39	8,961,302
1807	776,814	73 1	1,249,819	7 17	1,501,035
1808	87,330	78 11	263,813	5 69	5,847,366
1809	393,889	94 5	846,247	6 91	7,481,298
1810	325,924	103 3	798,431	9 37	14,377,989
1811	216,833	92 5	1,445,012	9 95	14,189,526
1812	53,832	122 8	1,443,492	9 83	11,147,602
1813	288,535	106 6	1,260,942	8 92	1,662,156
1814		72 1	193,274	8 60	7,514,456
1815	17,634	63 8	862,739	8 71	7,130,138
1816	62,321	76 2	729,053	9 78	17,291,824
1817	96,407	94 0	1,479,198	11 69	11,530,602
1818	196,808	83 8	1,157,697	9 96	5,337,192
1819	82,065	72 3	750,660	7 11	5,555,609
1820	22,137	65 10	1,177,036	4 72	5,048,248
1821	25,821	54 5	1,056,119	4 78	5,447,331
1822	4,418	43 3	827,865	6 58	5,160,708
1823	4,272	51 9	756,702	6 82	5,601,971
1824	20,373	62 0	996,792	5 62	4,150,929
1825	17,990	66 6	813,906	5 10	3,988,863
1826	45,166	56 11	857,820	4 65	4,542,234
1827	22,182	56 9	868,496	5 23	4,220,530
1828	8,906	60 5	860,809	5 60	5,300,647
1829	4,007	66 3	837,385	6 33	5,928,606
1830	45,289	64 3	1,227,434	4 83	10,243,019
1831	408,910	66 4	1,806,529	5 67	4,947,337
1832	88,304	58 8	864,919	5 72	5,360,974
1833	32,421	52 11	955,768	5 63	4,318,770
1834	36,948	46 5	835,352	5 17	4,582,848
1835	47,762	39 4	779,396	5 88	4,038,146
1836	2,062	48 6	505,400	7 99	2,986,397
1837	17,303	55 11	318,719	9 37	3,491,174
1838	6,201	63 4	448,161	7 79	1,670,512
1839			916,161		
1840			813,542		

Thus it will be seen, that our exports have diminished yearly from 1790 to this time, with the exception of the years when Europe has been at war. In 1793, we exported equal to 6,828,770 bushels of wheat; but in 1838, only 2,246,769, although we produced five times as much as we did in 1790. In 1700, the wheat grown in Great Britain was only 14,000 bushels, barley 27,000; in 1830, wheat over 100,000,000, and barley 37,000. Notwithstanding the policy of England is to protect her agricultural industry, no countervailing protection has been adopted by the United States. Duties upon British goods are every year lessening, and many are free of duty. If she would receive our bread-stuffs on payment of the same duties which we pay on her manufactures, then the farmer would have no just cause for complaint.—*Inquirer.*

For the Farmers' Cabinet.

The Ayrshire Cow.

Mr. Editor,—Where shall I get just such a living cow as that of which your last portrait is a true resemblance? I think I could afford to give a good price for such an one, thin and gaunt, and meagre as she appears. But I hear some one ask, "What would you do with her when she would be too old to give milk?" I answer, "After milking her for eight or ten years, and getting from 20 to 36 quarts of milk a day, I could afford to do what I pleased with her—or nothing." It is, however, a grand mistake to suppose that these animals will not feed fat when dry; nothing is farther from the truth, as all know, who have ever witnessed the experiment—in fact, there are no cattle which feed faster or pay *so well* for food as the Guernsey breed, as they are called; the meat is peculiarly fine-grained and rich flavoured, and even when but half fat, the beef is elegantly marbled, and is sure to bring an extra price over larger animals. It is also a fact, that steers of this breed are always very much larger than any one would expect, and at the age of four years have been known to reach great weights. I once heard Sir Charles Morgan say, that he brought two oxen from Guernsey, which he fed, and for which the butcher paid him one hundred guineas—forty-five guineas for one, and fifty-five for the other—adding, his steward was convinced that no cattle which he had fed, ever made such progress or became ripe in so short a time: they were, however, light in the hind quarters; but the quality of the meat, and the small quantity of offal, made ample amends for any partial falling off in that particular.

I have now before me the fine lithographed plate of the two noble cattle which were bred and fed by Edward Tonkins, of Gloucester county, New Jersey, in the year 1838: the black and white ox of this pair was evidently a cross with the Guernsey breed; he shows it in many particulars, especially in the lightness of the head and neck, and the narrow rump and general lightness of the hind quarter—all pourtrayed to the life by Woodside *from* the life; but the great depth and thickness of the fore-quarters, with the barrel-shaped ribs and capacious breast, make up for all deficiencies. It is admitted on all hands, that the dead weight of animals of this breed, or a cross from it, is uniformly greater than the estimate of those accustomed to judge of the weight of cattle of other breeds.

May we hope that some of our improvers will one day introduce amongst us this particular breed of Ayrshire cattle for the use of the dairy? I know of no one more likely than Mr. Sotham to do us this piece of service; his freedom from prejudice in point of blood and colour, and name, fit him peculiarly for the office of selecting *the best*, without regard to such "quibbles, which are too much like quackery to deserve notice."

A Subscriber.

New Jersey.

For the Farmers' Cabinet.

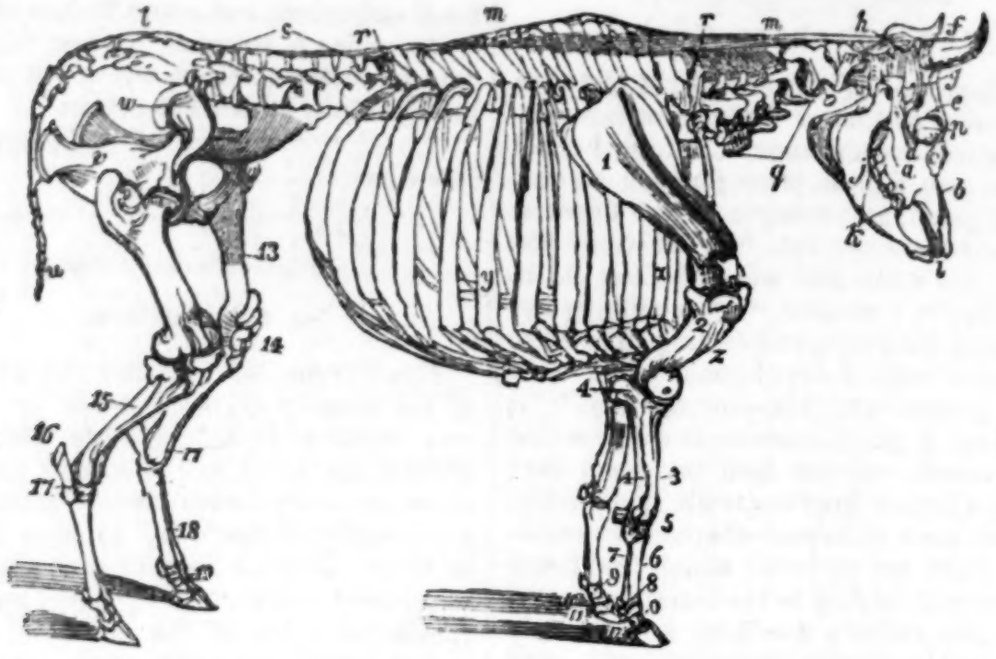
Caterpillars.

Mr. Editor,—Soon after the publication of the number of the Cabinet for March, I was called to Philadelphia on business, and noticed the trees in the streets hung with those curiously-formed tassels, mentioned by a "Country Subscriber," at page 255: and as their owners, aware of that singular arrangement, were removing them by pruning, I selected some of the branches, and preserved them by suspending them in a warm room, that I might witness the result. On this day, one of the animals has commenced operations; but I am surprised to find that it has not left its cell for the purpose, neither does it deposit *eggs*, as I had been led to expect, but it is bringing forth living worms by vast numbers; and this is accomplished by a most curious process. From the lower or pointed part of the tassel or case, descends a filament of silk, to which the small maggots adhere at regular distances, and this silk soon extends to a considerable length, the young ones still accompanying it; and at about 18 inches distance, it comes in contact with a sheet of paper, to which the little creature attaches itself, and begins immediately to forage abroad for something to feed on. And it is curious to observe, that in its passage from the cell, its growth has increased to several times its size at the time of exudation; its strength and activity being remarkable.

In the account, it is said, these cells are attached to the extremities of the topmost branches by filaments of silk, so strong as not to be endangered by the most violent winds; and it is now, that the wise arrangement is perceived and understood, for the small filament of silk is sent from the cell, and is permitted to float in the air, which soon wafts it to some adjoining spray or leaf, to which it is firmly attached by the glutinous nature of the web, and down which the little creatures descend by hundreds with the greatest regularity. I shall be curious to learn the fate of the insect itself—whether, after it has performed its task of procreation, it is doomed to death, or is transformed into some other "new and untried being." Truly we are surrounded by wonders!

J. B.

April 25, 1841.



Skeleton of the Ox.

a, The upper jaw-bone.
b, The nasal bone, or bone of the nose.
c, The lachrymal bone.
d, The malar, or cheek-bone.
e, The frontal bone, or bone of the forehead.
f, The horns, being processes or continuations of the frontal.
g, The temporal bone.
h, The parietal bone low in the temporal fossa.
i, The occipital bone, deeply depressed below the crest or ridge of the head.
j, The lower jaw.
k, The grinders.
l, The nippers, found on the lower jaw alone.
m, The ligament of the neck, and its attachments.
n, The atlas.
o, The dentata.
p, The orbit of the eye.
q, The vertebræ or bones of the neck.
r, The bones of the back.
s, The bones of the loins.
t, The sacrum.
u, The bones of the tail.
v & *w*, The haunch and pelvis.
x, The eight true ribs.
y, The false ribs, with their cartilages.
z, The sternum.
1, The scapula, or shoulder-blade.
2, The humerus, or lower bone of the shoulder.
3, The radius, or principal bone of the arm.
4, The ulna, its upper part forming the elbow.
5, The small bones of the knee.
6, The large metacarpal or shank-bone.
7, The smaller or splint-bone.
8, The sessamoid bones.
9, The bifurcation at the pasterns, and the two larger pasterns to each foot.
10, The two smaller pasterns to each foot.
11, The two coffin-bones to each foot.
12, The navicular-bones.
13, The thigh-bone.
14, The patella, or bone of the knee.
15, The tibia, or proper leg-bone.
16, The point of the hock.
17, 17, The small bones of the hock.
18, 18, The metatarsals, or larger bones of the hind leg.
19, 19, The pasterns and feet.

Repose under grasses, is the soul of good management; all cleaning and tillage to be given in the year that yields winter root-crops.

To the Editor of the Farmers' Cabinet.

"Dairy Maid" and "Blossom."

Sir,—I have been gratified by the sight of a painting from the life of that remarkable animal "Dairy Maid," (see the present vol. of Cabinet, page 57,) the property of James Gowen, Esq., Mount Airy. It has been done by Woodside in his best manner, and reflects the greatest credit upon him as an animal portrait painter of the highest order. On the same easel, is the portrait of that other remarkable animal "Blossom," (see the present vol. of Cabinet, page 97,) the property of Samuel Canby, Esq., Woodside, near Wilmington, Del., approaching to completion. They are certainly two of the finest specimens of *art* in this country, while as specimens of *nature*, it would be difficult to find their equals in any country.

Apropos—Are we to have the milking properties of these magnificent creatures tested by comparison, as proposed by their fortunate owners? It would indeed be a lamentable circumstance were they to pass away without such a trial, when it could so easily be accomplished by persons whose characters would be a guarantee for the fairness with which the competition would be conducted. It is said that Mr. Canby declines *upon principle* to accept Mr. Gowen's terms, as they appear to him in the questionable shape of a *bet;* but as the cows would as lief give their milk for *love* as *money*, it is sincerely to be wished that these gentlemen will be able to make amicable arrangements for a friendly trial: and may we hope that they will oblige us with the result through the pages of the Cabinet in some not distant number!

A Correspondent.

The Vegetable Garden.

It is necessary for the soil of a garden to be deep and friable; neither too light or too heavy; underdraining absolutely indispensable, if the *subsoil* be retentive. Depth of soil prevents drought, by its capability of retaining moisture and giving it out by evaporation from the subsoil, as also by being capable of holding more water without being flooded. The manure should be properly fermented and mixed with mould, vegetable matter, &c., and be thoroughly turned and well pulverized during the proper seasons, that a supply may be always at hand when needed. Until the soil be deepened by regular working, the defect may be partially remedied by throwing into beds, on which the crops may be planted; but it is much better to trench it at once, and make it by artificial means what it ought to be. Most garden seeds are drilled, for the purpose of affording a greater facility for cleaning the crop, and these drills may be conveniently formed by laying a board across the bed and drawing the drill along the edge; and after dropping the seed and covering it, the board might be moved forward by placing it on the planted drill; and by standing on this board during the planting, it is made to serve the purpose of a roller, pressing the soil firmly about the seeds and assisting their vegetation. Other and longer drills might be made by drawing a rake with two or three large teeth, one of which is to follow the track of the last made drill, and the others to throw out one or more at the distance appointed. A roller of suitable size is as advantageous in a garden as in the field; nothing protects turnips and other plants so well from the ravages of the fly as rolling; it presses the soil smooth and destroys their hiding-places, and encourages the growth of the plant so as to be sooner out of the reach of its depredations. All seeds sown in dry weather, will germinate quicker and be sooner out of the way of the weeds, if soaked in warm water 24 hours before sowing.

Cabbages. The early kinds may be sown in a hot-bed, from whence the plants may be removed to the open ground; or if sown later, they may be raised in a warm border under a fence with a southern aspect. Red cabbage may be sown in May, and savoys and drumheads almost any time during that month. When planted where they are to remain, the early kinds may stand two feet apart, the larger kinds about three feet.

Broccoli. The purple cape is the best variety for common culture; other kinds require much care and attention. If these are sown the middle of May, and transplanted into rich soil when of a suitable size, they will produce heads early in autumn.

Cauliflower. This crop requires care; it succeeds best when sown in August, and transplanted into beds protected by sash during the winter. It will however do well, if sown in a hot-bed early in the spring, and transplanted into a rich soil in May. And if the seed be sown in May, the plants may be treated as the purple cape broccoli, and with the same success.

Kale and Brussels Sprouts may be sown the middle of May, and be transplanted early in July in rich ground; they are used as greens, and are best after the frost has touched them.

Asparagus. Sow the seeds early in the spring, in drills one foot asunder. Transplant into beds at a year old, and they may be cut from in three years. If the beds are properly prepared, and well attended to by manuring every year, they will continue to yield crops for twenty years. To form new beds, dig the ground 18 inches or 2 feet deep, filling the trench with alternate layers of fresh mould and fermented manure; upon this lay a covering of a few inches of the richest mould, and in this plant the roots, one foot apart, and the crowns about three inches below the surface. To dress old beds, clean early in the spring, and fork into them two or three inches thick of good rotten manure, taking care not to injure the roots.

Artichokes may be raised from seed or young suckers taken off in the spring; the seed to be sown in drills one inch deep and one foot apart: and when the plants are a foot in height, they might be transplanted into ground trenched 18 inches deep, well mixed with rotten manure, and standing about three feet apart, or three by five.

Peas. The early varieties should be sown as early as possible in the spring; double rows are most convenient, a foot apart, by four or six feet between, according to the height: the half dwarfs, supported by short sticks, are by far the most prolific and least troublesome.

English Beans should be planted very early, that they may bloom before the great heats of summer. A strong clay loam is best. Plant with a dibble the seed three inches apart in the rows, and two feet and a half distance. The sorts are the Mazagan, Lisbon, early; the Genoa, late. Kidney beans, common bush and pole, require a light soil, and may be planted in hills, three or four seeds in a hill; or in drills, two or three feet apart, and two or three inches in the drill. The planting of these should be delayed until the weather is warm and settled, after which a regular succession should be sown every ten days or fortnight.

Cucumbers, Melons, and Squashes. In May, in highly manured ground, about four

feet apart; care being taken that the subsoil of the beds when they are planted is dry and healthy; or if it be cold and clayey, throw out the surface and bury old mortar rubbish, to prevent their roots from penetrating into the poisonous subsoil, and upon this throw up ridges a foot at least in height. As soon as the plants are up, look out for the striped bugs, and give them neither rest nor quarter.

Carrots require a deep, rich soil; sow in drills, 18 inches apart, and prepare the seed by steeping it in warm water and mixing it with rich light mould; turning and watering the heap occasionally, until the seeds are sprouted; then sow on fresh dug land.

Parsneps. The same management in planting, but not so much necessity for sprouting the seed.

Beets. For early crops, sow early; for winter crops, June is supposed to be early enough; in drills 20 inches apart, one or two inches deep, and three inches apart in the drills, to be thinned to about eight inches; keep clean, and take up the crop before injury by frost.

Salsafy, or Vegetable Oyster. The same culture as the carrot.

Onions. May be sown in April, in drills ten or twelve inches apart.

Parsley. Sown early, in drills; some may be sown in large pots for winter use, removing under shelter for that purpose when frost and snow fall.

Egg Plant. Sow in a hot-bed, and set out the plants in the end of May, two feet apart, in good garden mould.

Celery. Sow the seed early, and plant out from the seed-bed, crops in succession in an open situation and in proper trenches, with plenty of rotten manure dug into the bottom, leaving large space for earthing up in blanching.

Sea-Kale is a delicious vegetable; requires a deep, rich, sandy loam, as the roots penetrate to a great depth. Sow the seed early in a bed of fine mould, and when the plants are a year old, transplant about 14 inches apart; blanch by covering deep with clean gravel, or, which is better, inverted pots: three or four weeks are required for blanching, but the crop can be brought forward and blanched at the same time by covering the pots with hot stable dung, removing and renewing it occasionally.

Tomatoes. Sow in hot-beds, and transplant under fences or in open ground, 3 feet apart.

Potatoes. Cut one eye to each piece, and plant in rows 20 inches apart: cover with dung and keep clean by hoeing, but do not mould up the rows.—*Selected.*

The coldest hour in the 24, is five in the morning; the hottest, from two to three in the afternoon.

The present Winter.

The memory of the oldest farmer does not, perhaps, embrace a winter so long and so severe in its effects on domestic animals, as the one which has even yet — 21st April — not gone by. It may be said to have set in the first week in November, and will have continued six months, or half the year! Provender of every sort — even wheat-straw — has been used up; the weather is still cold enough for mid-winter, and the little grass that has sprung up has not strength enough in it to sustain the starving beasts that pick it! What will be thought of it in *New England*, when we state, that the number of cattle that have and probably will die in *Maryland*, from the length of the winter, frequent rains, exposure, and *actual starvation*, will probably not fall short of 2000 head, and double that number of sheep and lambs! What is the remedy for this disastrous, if not disgraceful state of things for the future? Let every farmer provide more roots and more hay, and let him not make his calculation on regular feeding, less than six months in the year. In a ride of 50 miles, you will scarcely meet with a single horned animal that is not literally mere *skin and bone*, and the most favourable summer that can happen, will barely restore them to tolerable order, to enable them to encounter the next winter. So unexpected has been the prolongation of the feeding season, that some who sold hay in the early part of it, in the confidence of having reserved a sufficiency for any emergency, are now losing their cattle with a disorder called "on the lift"—a disease which we believe is unknown to the farmer and pharmacœpist in the Eastern states.—*Am. Farmer.*

We would take occasion to urge upon our agricultural friends, to *treble* the amount of land which they had set apart last autumn for the cultivation of the root crops, not confining themselves to the growth of one or two kinds in particular: if they have a prejudice against any, let them sow others — but by all means cultivate a large breadth of either one or the other, and not lose the season by "wondering" which crop would suit them best. The sugar-beet may be sown on land after carrying the first crop of clover; or be drilled between the rows of corn at its last cleaning—poudrette, bone-dust, or street dirt accompanying — with the expectation of gathering full crops in the autumn; but if this be not done, and all dependence be placed on hay alone for the next winter, what will be the result, if another such season befals us, is easy to foresee. A portion of the hay of the coming summer ought, by all means, to be reserved over the next winter as a stock for the future, for there can be none now left on hand; and this consideration should constrain us to use the utmost diligence in cultivating root crops the present season, to the very greatest possible extent. Many of our friends intend cultivating the potato as food for milch cows the next winter, boiling and mashing them with meal for the purpose of slop-feeding.—Ed.

For the Farmers' Cabinet.

Cross-Breeeding,

And Breeding in-and-in in the Vegetable Kingdom.

Mr. Editor,—The terms cross-breeding, and breeding in-and-in, are familiar to most of your agricultural readers, but may not be so well understood when applied to vegetables; therefore, a communication on the subject might be acceptable.

By the term *cross-breeding*, I would be understood as meaning that process by which the pistil, or female part of a flower, becomes impregnated by the pollen from a flower of a different variety of the same species. By the term *breeding in-and-in*, as meaning that process by which the pistil of a perfect flower is impregnated with the pollen from its own stamens, or those of a flower of the same variety; or, in case the plant belongs to the class Monœcia, from flowers of the same plant. By the *first* process, the object is, to obtain new varieties, partaking of the nature of both the parents from which the variety is produced, or a medium between the two: by the *second*, to continue any well-known and valuable variety, by producing new plants from the *seeds*, which shall retain all the valuable properties of the parent, as in annuals, and so continue them for any length of time without intermixture with inferior varieties, and in perennials to escape any disease or debility produced by long duration. Fully aware of the benefits which have resulted to the agricultural world from the attention which has been paid by certain individuals to the improvement of *animals* both by cross-breeding, and breeding in-and-in, I would inquire, whether similar benefits might not accompany a like attention to the fructification of *plants?*

My object in calling the attention of horticulturists to this subject, is to inquire, whether some process may not be discovered, by which the flowers of our fruit-bearing trees may be so impregnated, as to enable us to continue any valuable variety, by raising young trees from seeds so impregnated, at a cheaper rate than they are now propagated by budding, grafting, or any process now resorted to. Sir A. Knight has thrown much light on this subject by his numerous experiments in cross-breeding, by which he has not only produced many valuable varieties both in annuals and perennials, but has been able to predict, before they produced their fruit, what that fruit would be. He also supported the theory, that each new plant from seed was a new generation, and had its limited duration according to the nature of the plant. According to this theory, the time will come when all our present valuable varieties of fruit will have become extinct. If this is correct, is it not desirable that we should endeavour to discover some way in which they may be perpetuated? And cannot this be done by breeding in-and-in? By his theory of cross-breeding, he lays it down, that the new variety produced, is a medium between the two varieties made use of in the fructification, in *size, flavour, colour;* but that the new plant produced bears in growth a strong resemblance to the mother, or plant which produced the fruit or seed from which the plant was raised.

We know of many plants which produce flowers, that, from their peculiar shape, the pistil or female part of the flower is so enveloped, that it is difficult for the pollen from any other plant to come in contact with it; and where flowers are so formed, we see the varieties continue for ages without any alteration. Such is the case with the bean, pea, and several other plants; and yet Knight found the pea-flower very convenient to experiment upon, as they required no artificial covering after they were impregnated.

Have we not reason to believe that the pollen from different flowers acts upon the same pistil, and in different degrees, proportioned to the quantity, producing their proportionate effect upon the character of the succeeding plant? And are not the pistils of perfect flowers, or those producing stamens and pistils in the same plant, often so nearly impregnated with their own pollen, as to produce plants from their seed with but little variation from their mother plant, and an almost perfect similarity of fruit? Upon what other principle are we to account for the great similarity that is found to exist in certain families (if I may be allowed the expression) of Apples?—viz. the Junitting, Seeknofarthers, Pippins, Russets, and several other varieties or families? Of the Junitting, we have in this section of country four distinct varieties, "alike, yet various;" of the Seeknofarther, four distinct varieties, varying in size and colour a little, but all so near, that a person acquainted with any one, and tasting another variety, would at once recognize it as a Seeknofarther; the growth of the trees also resembles each other so closely that may be readily selected. The varieties of Junitting bear the same description, all peculiar in their growth, and time of ripening, and flavour. Now how are we to account satisfactorily, unless upon the principle that the pistil is affected in proportion to the quantity of pollen deposited? If this be so, then what a field lies open for improvement by the horticulturist? I am convinced that if the principles of the fructification of plants were more generally understood by our agriculturists and horticulturists, and that emulation excited which exists among those engaged in breeding of animals, that a corresponding improvement might be made, and in all probability attended with as fair a profit as those have realized who have paid their attention exclusively to animals.

Problems.—Suppose a tree-top was enclosed in a glass frame during the flowering season—would not the flowers be impregnated with their own pollen, provided they were perfect flowers? And if so, would not the seeds produce plants *the same in all their characteristics?* And could not this be done, and trees raised at a cheaper rate than by grafting?

It is hoped that gentlemen having opportunities will, this season, endeavour to solve some of the above problems.

N. GOODSELL.

Rochester, April 26, 1841.

For the Farmers' Cabinet.

Change of Soil, a Change of Seed.

Mr. Editor.—At the last meeting of the Philadelphia Agricultural Society, a member remarked, that the Foxite potato—which has been grown for many years in Jersey, where the crop has for some time past suffered a regular diminution in quantity—is quite renovated by a removal to the neighbourhood of Spring Mill, Montgomery County, where it has uniformly yielded double the quantity of the Mercers, when planted side by side and under precisely the same circumstances. In this situation it turns out a late potato, the stalks remaining green until they are killed by the frost; and in this way its great productiveness is accounted for.

Would it not, therefore, be excellent management to change the seed of the potato every year, still adhering, however, to a particular kind, if it be deemed preferable? and this might readily be accomplished by friends residing at a distance, upon lands that are dissimilar in their natures, by which, there is no doubt, much benefit would be derived. Will our friends try it?

J. M.

A Gem.

"Carbonic acid, water, and ammonia, contain the elements necessary for the support of animals and vegetables. The same substances are the ultimate products of the chemical processes of decay and putrefaction. All the innumerable products of vitality resume, after death, the original form from which they sprung. And thus death—the complete dissolution of an existing generation—becomes the source of life for a new one." Liebig.

Notice.

To P. M.'s question—"Is the Beet-crop now ranked with the Morus Multicaulis, seeing that no premium is offered by the Philadelphia Society of Agriculture for its cultivation the present year?"—the Committee for Premiums would reply, they consider the cultivation of the Beet *established*, and no longer requiring their aid—it being, in fact, a premium in itself. To the question, "Will the White Carrot be permitted to compete with the common kinds for premium?" it is answered, *certainly*.

The Essay on Temperance should be read with the deepest attention: it has been presented to the Cabinet by a practical farmer and valuable correspondent, and is a serious, sensible, and seasonable address on a subject of vital and general importance, which admitted not of separation in any of its parts: it has therefore been given whole in the present number.

A very interesting little work "On the management of Bees," has been published by J. M. Weeks, the patentee of the Vermont Bee-Hive, a model of which may be seen at the office of the Cabinet. The work may be obtained, price 37½ cents, at the store of the proprietors and publishers of the Farmers' Cabinet, No. 50, North 4th street, Philadelphia; where also may be had all the standard works on Agriculture, Horticulture, Botany, and the sciences generally.

At the last meeting of the Horticultural Society of Philadelphia, the Committee to whom was referred the consideration of the Orchardist's Companion, a new quarterly journal undertaken in this city by A. Hoffy, Esq., report: That they have carefully examined the first number, and the synopsis of the publication, and find it to be a "Journal devoted to the history, character, properties, modes of cultivation, and all other matters appertaining to the fruits of the United States," and are of opinion that the work is calculated to have a beneficial tendency, and ought to receive the cordial support of the friends of Horticulture. The embellishments are accurately executed, delineating a portion of the branch with the fruit, leaves, and minute appendages in their natural position, and in all their beauty and richness of colouring. The work will be a becoming ornament to any library.

A small quantity of the seed of the *Emur*, (see page 183 of the Cabinet for January,) may be obtained of Mr. Powell, seed store, 23 Market street, Philadelphia. A crop has been sown the present spring, and the plants appear peculiarly strong and promising.

In answer to several inquiries, it is stated, Mr. Paschall Morris's price for half-bred lambs, a cross between the full-blooded Bakewell Buck and Southdown Ewe, is $6 each, deliverable in August. The price for full-bred Bakewell Bucks, one year old, $25 each.

Many interesting articles lie over until our next. Will our friends forward their communications before the first of the month?

The quantity of rain and melted snow which fell during April (4th month,) was ..... 5.821 inches.
And the quantity which fell during the four months, from January 1st to May 1st, 1841, was ... 21¼ inches.

John Conrad.

Pennsylvania Hospital, 5th mo. 1, 1841.

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